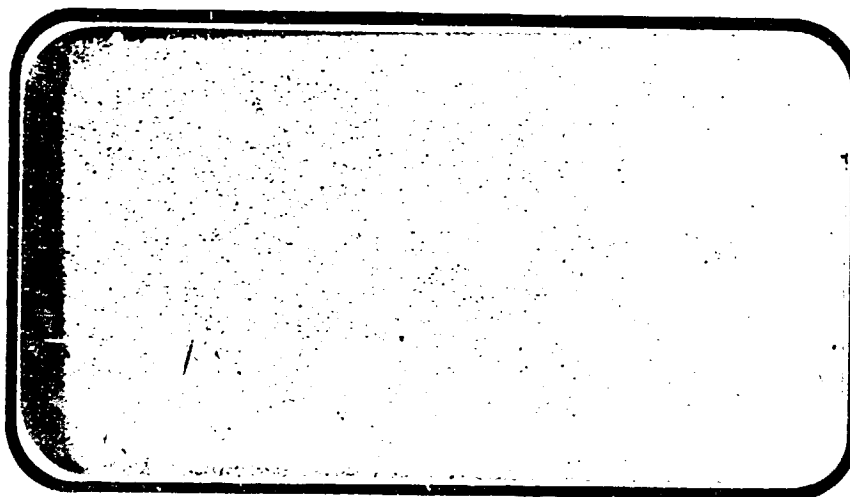


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AEROTHERMODYNAMIC DATA REPORT

MANNED SPACECRAFT CENTER

HOUSTON, TEXAS

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AERODYNAMIC CHARACTERISTICS OF A
162-INCH DIAMETER SOLID ROCKET BOOSTER
WITH AND WITHOUT STRAKES

By

Josh D. Johnson, MSFC
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Prepared under NASA Contract Number NAS9-13247

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for

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AERODYNAMIC CHARACTERISTICS OF A
162-INCH DIAMETER SOLID ROCKET BOOSTER
WITH AND WITHOUT STRAKES

By Josh D. Johnson*, Walter P. Radford**, and John M. Rappy**

ABSTRACT

Tests conducted at NASA-Langley have shown that a small flap or strake can generate a significant amount of lift on a circular cylinder with large cross flow. If strakes are placed on the opposite sides and ends on a circular body, a moment will be produced about the center of mass of the body. The purpose of this test was to determine the static-aerodynamic forces and moments of a 162-inch diameter SRB (PRR) with and without strakes.

The total angle-of-attack range of the SRB test was from -10 to 190 degrees. Model roll angles were 0, 45, 90, and 135 degrees with some intermediate angles. The Mach range was from 0.6 to 3.48. The 0.00494 scale model was designated as MSFC No. 449.

* NASA/MSFC, ** NSI

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COEFFICIENT SCHEDULE

- 1 CNM, CA, CLMM, XCP/L, CYM, CYNM, CBL versus ALPHA
- 2 DCNM, DCA, DCLMM, DCYM, DCYNM, DCBL, versus ALPHA
- 3 DCNM, DCA, DCLMM versus ALPHA
DCNM versus DCLMM
- 4 DCYM, DCYNM, DCBL versus ALPHA
DCYM versus DCYNM
- 5 CNM, CA, CLMM, XCP/L versus ALPHA
- 6 CYM, CYNM, CBL, YCP/L versus ALPHA

NOMENCLATURE General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(P_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	{ angle of roll, degrees or radial location of strakes
ρ		
		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$ _{REF}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE
(Continued)
Missile-Axis System

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
C_N	CNM	normal force coefficient; $(C_N \cos \phi - C_Y \sin \phi)$
C_A	CA	total axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CYM	side-force coefficient; $(C_N \sin \phi + C_Y \cos \phi)$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$; $(P_\infty - P_b) A_b / qS$
C_{A_f}	CAF	forebody axial-force coefficient; $C_A - C_{A_b}$
C_m	CLMM	pitching moment coefficient; $(C_m \cos \phi - C_n \sin \phi)$
C_n	CYNM	yawing moment coefficient; $(C_m \sin \phi + C_n \cos \phi)$
C_ℓ	CBL	rolling moment coefficient; $\frac{\text{rolling moment}}{qSb}$

In addition to the standard notation, the following are special to this test:

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
X_{cp}/ℓ	XCP/L	Center of pressure location based on body length; $\left[\frac{X_{c.g.}}{\ell_{Body}} - \left(\frac{C_m}{C_N} \right) \left(\frac{\ell_{ref}}{\ell_{Body}} \right) \right]$
Y_{cp}/ℓ	YCP/L	Center of pressure location based on body length; $\left[\frac{X_{c.g.}}{\ell_{Body}} - \left(\frac{C_n}{C_Y} \right) \left(\frac{\ell_{ref}}{\ell_{Body}} \right) \right]$
ΔC_N	DCNM	Incremental normal force coefficient due to strake location; $\Delta C_N = (C_N)_{@ \phi = \text{degrees}} - (C_N)_{@ \phi = 0^\circ}$
ΔC_A	DCA	Incremental axial force coefficient due to strake location; $\Delta C_A = (C_A)_{@ \phi = \text{degrees}} - (C_A)_{@ \phi = 0^\circ}$
ΔC_Y	DCYM	Incremental side force coefficient due to strake location; $\Delta C_Y = (C_Y)_{@ \phi = \text{degrees}} - (C_Y)_{@ \phi = 0^\circ}$

NOMENCLATURE (Concluded)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
ΔC_m	DCLMM	Incremental pitching moment coefficient due to strake location; $\Delta C_m = (C_m)@ \phi = \text{degrees} - (C_m)@ \phi = 0^\circ$
ΔC_n	DCYNM	Incremental yawing moment coefficient due to strake location; $\Delta C_n = (C_n)@ \phi = \text{degrees} - (C_n)@ \phi = 0^\circ$
ΔC_l	DCBL	Incremental rolling moment coefficient due to strake location; $\Delta C_l = (C_l)@ \phi = \text{degrees} - (C_l)@ \phi = 0^\circ$
	FWDSTK	Parameter name describing the forward strake; number in front of decimal is the number of strakes. Number after decimal is the length of the strake in calibers.
	AFTSTK	Parameter name describing the aft strake; number in front of decimal is the number of strakes. Number after decimal is the length of the strake in calibers.
STRIP GRIT COVERAGE	S	Indicates that grit has been applied to model in a strip (see Figure 8)
FULL GRIT COVERAGE	F	Indicated that grit has been applied completely to the area under consideration on the model (see Figure 8).

CONFIGURATIONS INVESTIGATED

The model geometry is specified in Figure 1. The model has been given the designation "MSFC Model 449". The model is a 0.00494 scale representation of the Solid Rocket Booster (SRB) with symmetrical engine shroud and nozzle. The basic model has a 1.097 inch (1.37 calibers) 18° half-angle blunted cone followed by a 8.453 inch (10.57 calibers) body with a constant diameter of 0.8 inch (1 caliber) which terminates with a symmetrical engine shroud and nozzle.

One strake, 1 caliber long and 0.1 caliber high was located 1 caliber aft of the cone shoulder on the model upper surface. One strake was also located at .287 calibers forward of the base of the flare on the lower surface of the model. The radial locations of the strakes are shown in Figure 2. Radial sign is also established in Figure 2.

The following variations in the strake configuration were also tested at $M = 0.9$ and 3.48 for angles-of-attack 70 to 90 degrees.

- a. Two, 2-caliber strakes, one forward and one aft. (Strake length was increased toward the center of model).
- b. Four, 1-caliber strakes, two forward and two aft.
- c. One, 1-caliber strake forward and one, 2-caliber strake aft.
- d. One, 2-caliber strake forward and one, 1-caliber strake aft.
- e. One, 1-caliber strake. One strake forward with none aft or one strake aft with none forward.

The model was designed so that the nose and nozzle could be reversed end for end on the sting. For strake radial angles (θ), strakes could be

rotated at 22.5 degree increments. The model's center section remained fixed with respect to the balance. The model was designed so that the balance center would always be located on the tunnel centerline.

The following examples are used to define strake radial location and strake conditions. When the model was tested with strakes on (NBES), there were always two (one FWD and one AFT) except for the one condition (e) as explained in the previous paragraphs.

The aft strake is always 180 degrees radially from the forward strake (Figure 2). However, only the radial location of the forward strake will be identified.

PHI - Forward Strake Radial Location

PHI - 0.0, no strake on SRB

- 45.0, only one fwd strake (aft strake 180° radially from fwd strake)
- 360.90, two fwd strakes - one at 360° and one at 90° (two aft strakes are 180° radially from 360° and 90° respectively)
- 45.135, two fwd strakes - one at 45° and one at 135° (two aft strakes are 180° radially from 45° and 135° respectively)

The model was changed from a tail mount to a side mount at an angle of attack of 50 degrees and then from a side mount to nose mount at an angle of attack of 130 degrees. The nose and engine shroud/nozzle were placed on opposite ends of the body at an angle of attack of 90 degrees to obtain the alpha range of 90 thru 190 degrees. Figures 3 and 4 present typical model mounting setups for the entire alpha range. Figures 5 through 7

show typical installation of the model in the tunnel with three different mounting setups.

The following 0.00494 scale model components were utilized in testing the model configuration (Refer to Table III for dimensional data and alterations due to sting location):

- N 162 inch SRB nose, cone angle is 18° with a spherical radius nose cap.
- B 162 inch SRB body
- E 162 inch SRB engine shroud and nozzle. Both shroud and nozzle are symmetrical with the SRB body
- S 162 inch SRB body strakes
- R attachment ring

Subsonically, the test was conducted at subcritical Reynolds numbers. In an attempt to minimize Reynolds number effects, No. 100 silicon carbide abrasive was applied randomly over the model for $M = 0.6$. The comparison of the model with and without grit is shown on pages 144-164 of the plotted data. Figure 8 shows the pattern of grit coverage

The percentage of tunnel blockage was approximately 4.2%.

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Trisonic Wind Tunnel is an intermittent blowdown tunnel which operates by high pressure air flowing from storage to either vacuum or atmospheric conditions. A Mach number range from .2 to 5.85 is covered by utilizing two interchangeable test sections. The transonic section permits testing at Mach 0.20 through 2.50, and the supersonic section permits testing at Mach 2.74 through 5.85. Mach numbers between .2 and .9 are obtained by using a controllable diffuser. The range from .95 to 1.3 is achieved through the use of plenum suction and perforated walls. Mach numbers of 1.44, 1.93 and 2.50 are produced by interchangeable sets of fixed contour nozzle blocks. Above Mach 2.50 a set of fixed contour nozzle blocks are tilted and translated automatically to produce any desired Mach number in .25 increments.

Air is supplied to a 6000 cubic foot storage tank at approximately -40°F dew point and 500 psi. The compressor is a three-stage reciprocating unit driven by a 1500 hp motor.

The tunnel flow is established and controlled with a servo actuated gate valve. The controlled air flows through the valve diffuser into the stilling chamber and heat exchanger where the air temperature can be controlled from ambient to approximately 180°F. The air then passes through the test section which contains the nozzle blocks and test region.

Downstream of the test section is a hydraulically controlled pitch sector that provides a total angle of attack range of 20° ($\pm 10^\circ$). Sting offsets are available for obtaining various maximum angles of attack up to 90°.

DATA REDUCTION

All model forces and moments were resolved in the missile axis system and presented in the form of nondimensional coefficients. When the model is reversed on the balance for angles from 90 to 190 degrees, the following forces and moments have been changed in sign to transform them into the missile axis system; axial force, side force, pitching moment and rolling moment. This is illustrated in Figure 9.

The incremental static aerodynamic coefficients due to various strake conditions were obtained by subtracting the value at body alone conditions from the value at body + strake conditions. There was no base axial force computed due to the different type of sting/model configurations tested.

Model reference dimensions used in the data reduction are:

<u>Parameter</u>	<u>Full Scale</u>	<u>Model Scale</u>
Reference Area (S_{ref}) based on body cross section)	20,602 in. ²	0.503 in. ²
Reference Length (l_{ref}) = (b_{ref}) = model diameter	162 in.	0.8 in.
Moment Reference Center (from body nose)		
XMRP	1,233 in.	6.081 in.
YMRP	0	0
ZMRP	0	0

Data was corrected for weight tares and sting deflections, but not for tunnel flow angularities. Schlieren photographs at $M = 3.48$ are available upon request from NASA/MSFC.

TABLE 1.

TEST CONDITIONS

TEST 554

[illegible]

BALANCE UTILIZED: MSFC # 231

CAPACITY:

NF	<u>122 lbs</u>
SF	<u>52 lbs</u>
AF	<u>20 lbs</u>
PM	<u>122 in. lb.</u>
YM	<u>53 in. lb.</u>
RM	<u>30 in. lb.</u>

ACCURACY:

.61 lbs
.26 lbs
.10 lbs
.61 in. lb.
.27 in. lb.
.15 in. lb.

COEFFICIENT

TOLERANCE: $q = 10 \text{ psi}$

~~.0082~~
~~.0035~~
~~.0013~~
~~.0015~~
~~.0007~~
~~.0004~~

COMMENTS :

TABLE II.
TEST MSFC TW7 554 DATA SET COLLATION SHEET

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS		SI		AGE MEMBERS (OF ALTERNATE INDEPENDENT VARIABLE)										PRETEST	POSTTEST
		A	B	A	B	1	2	0.60	0.90	1.20	1.96	3.48							
R79 AIA	N B E	A	O O			S	3	0.01/0	0.02/0	0.03/0									
AIB		B				S	3	0.04/0	0.05/0	0.06/0									
AIC		C				S	3	0.07/0	0.08/0	0.09/0									
BIB		B				F	3	0.08/0	0.09/0	0.10/0									
BIC		C				F	3	0.07/0	0.08/0	0.09/0									
BID		D				F	1	0.09/0											
BIE		E				F	1	0.09/0											
BIF		F				F	1	0.09/0											
CIA		A				N	5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIB		B					5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIC		C					5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CID		D					5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIE		E					3	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIF		F					3	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIG		G					5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIH		H					5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
CIJ		I					4	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			
YCIJ		J					5	0.01/0	0.02/0	0.03/0	0.04/0	0.05/0	0.06/0	0.07/0	0.08/0	0.09/0			

COEFFICIENTS: $\alpha A = -10$ TO 10 ; $\alpha B = 10$ TO 30 ; $\alpha C = 30$ TO 50 ; $\alpha D = 50$ TO 70
 $\alpha E = 70$ TO 90 ; $\alpha F = 90$ TO 110 ; $\alpha G = 110$ TO 130 ; $\alpha H = 130$ TO 150
 $\alpha I = 150$ TO 170 ; $\alpha J = 170$ TO 190
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TABLE II. (Continued)
TEST MSFC TW7554 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS	VALUES	NO OF RUNS	MAGNITUDES (OF ALTERNATE INDEPENDENT VARIABLE)					
		α	β				0.60	0.90	1.20	1.96	3.48	
P79D3A	N B E S	A	O	45		3	0.18/0	0.17/0	0.14/0			
D3B		B		45		3	0.13/0	0.14/0	0.15/0			
D3C		C		45		3	0.12/0	0.11/0	0.10/0			
D5A		A		90		3	0.19/0	0.20/0	0.21/0			
D5B		B		90		3	0.24/0	0.23/0	0.22/0			
E3B		B		45	F	3	0.23/0	0.24/0	0.25/0			
E3C		C		45	F	3	0.38/0	0.37/0	0.36/0			
E5B		B		90	F	1			0.39/0			
E5C		C		90	F	3	0.42/0	0.41/0	0.40/0			
E7A		A		135	F	1	0.49/0					
E7B		B		135	F	3	0.48/0	0.47/0	0.46/0			
E7C		C		135	F	3	0.43/0	0.44/0	0.45/0			
F2E		E		22.5	NO	2		257/0		145/0		
F3A		A		45		5	0.54/0	0.57/0	0.58/0	113/0	099/0	
F3B		B		45		5	0.83/0	0.82/0	0.81/0	109/0	073/0	
F3C		C		45		5	0.67/0	0.64/0	0.68/0	103/0	089/0	
F3D		D		45		5	0.39/0	0.22/0	0.23/0	108/0	149/0	
F3E		E		45		3	0.53/0	0.51/0		14/0		
F3F		F		45		3	0.32/0	0.31/0		138/0		
F3G		G		45		5	0.22/0	0.28/0	0.29/0	171/0	133/0	
							7	13	19	25	31	37
							43	49	55	61	67	7576

COEFFICIENTS: _____
 α or β _____
 SCHEDULES _____
 MSFC - Form 263-2 (February 1972)

IDPVAR(1) IDPVAR(2) NDV

TABLE II. (Continued)

☐ PRETEST ☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETRIC VALUES				NO. OF RUNS	MAG. NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)					
		a	B	ϕ	θ	ϕ	θ		0.60	0.70	1.20	1.96	3.48	
R79F3H	N B E S	H	0	45				5	18 1/2	18 2/3	18 2/3	14 1/2	11 1/2	
F3I		I		45				4	19 1/2	19 2/3	19 2/3	14 1/2	11 1/2	
F3J		J		45				2				11 1/2	11 1/2	
F4E		E		67.5				2		25 2/3		14 1/2	14 1/2	
F5A		A		90				5	05 1/2	05 1/2	05 1/2	11 1/2	09 1/2	
F5B		B		90				5	07 1/2	07 1/2	08 0	10 1/2	09 1/2	
F5C		C		90				5	07 1/2	07 1/2	06 3/4	10 1/2	08 1/2	
F5D		D		90				5	20 1/2	21 0	21 1/2	16 1/2	14 1/2	
F5E		E		90				3	24 1/2	24 1/2			14 1/2	
F5F		F		90				3	24 1/2	24 1/2			13 1/2	
F5G		G		90				5	20 1/2	20 1/2	20 1/2	17 1/2	13 1/2	
F5H		H		90				5	17 1/2	18 0	18 1/2	17 1/2	12 1/2	
F5I		I		90				4	18 1/2	19 1/2	19 1/2	12 1/2	12 1/2	
F5J		J		90				5	20 1/2	20 1/2	20 1/2	11 1/2	11 1/2	
F6E		E		112.5				2		25 1/2		14 1/2	14 1/2	
F7A		A		135				5	05 1/2	05 1/2	05 1/2	11 1/2	09 1/2	
F7B		B		135				5	07 1/2	07 1/2	07 1/2	10 1/2	08 1/2	
F7C		C		135				5	07 1/2	07 1/2	07 1/2	10 1/2	08 1/2	
F7D		D		135				5	22 1/2	22 1/2	22 1/2	16 1/2	15 0	
F7E		E		135				3	23 1/2	23 1/2			14 1/2	

1

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7576

COEFFICIENTS:

8 10 2

SCHEDULES

MSFC - Form 263-2 (February 1972)

TABLE II. (Continued)

TEST *MSFC TWT 554* DATA SET COLLATION SHEET

PRETEST

POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)									
		a	B			0	0.60	0.90	1.20	1.96	3.48				
R79F7F	N B E S	F	0	135	3		254/0	255/0							
F7G		G		135	5		259/0	219/0	218/0	167/0					
F7H		H		135	5		185/0	196/0	187/0	172/0	126/0				
F7I		I		135	5		197/0	198/0	199/0	121/0	139/0				
F7J		J		135	2					120/1	115/0				
F8E		E		157.5	2		269/0				163/0				
G3E	N B E S	E		45	2		261/0				151/0				
G5E		E		90	2		264/0				152/0				
G7E		E		135	2		265/0				153/0				
H1E	N B E S	E		0/90	2		269/0				162/0				
H3E		E		45/135	2		235/0				154/0				
H5E		E		90/180	2		248/0				155/0				
I3E	N B E S	E		45	2		252/1				157/0				
I5E		E		90	2		268/0				158/0				
I7E		E		135	2		269/0				159/0				
J3E	N B E S	E		45	2		262/0				169/0				
J5E		E		90	2		263/0				161/0				
J7E		E		135	2		266/0				154/0				
K3C	N B E SR	C		45	2		095/0				098/0				
K5C		C		90	2		096/0				097/0				

7

13

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49

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61

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75

76

COEFFICIENTS:

a or B

SCHEDULES

MSFC - Form 243-2 (February 1972)

IDPVAR(1) IDPVAR(2) NDV

TABLE II. (Continued)

TEST *MSFC TWT 554* DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETER VALUES		NO. OF RUNS	MAGN. NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)	
		α	β	ϕ	ψ		θ	ϕ
R79L3E	N B E S	E	0	45		2	0.60	0.90
L5E		E	0	45		2	0.60	0.90
M3E	N B E S	E	0	45		2	0.60	0.90
M5E		E	0	45		2	0.60	0.90
F8F	N B E S	F	0	157.5		1	0.60	0.90

1 7 13 19 25 31 37 43 49 55 61 67 7576

COEFFICIENTS:

α or β

SCHEDULES

MSFC - Form 263-2 (February 1972)

TABLE II. (Continued)
DATA SET IDENTIFIER CODING

DATA SET IDENTIFIER	CONFIGURATION	α	β	ϕ	GRIT	GROUP-DATA SET IDENTIFIER
R79A1A	NBE ↓	A	0	0	S	R79100
B		B	0	0	S	
C		C	0	0	S	
R79B1B		B	0	0	F	R79101
C		C	0	0	F	
D		D	0	0	F	
E		E	0	0	F	
F		F	0	0	F	
G		G	0	0	-	No Data
H		H	0	0	-	
I		I	0	0	-	
J		J	0	0	-	
R79C1A		A	0	0	NO	<div> <div>R79111</div> <div>R79102</div> </div>
B		B	0	0		
C		C	0	0		
D		D	0	0		
E		E	0	0		
F		F	0	0		
G		G	0	0		
H		H	0	0		
I		I	0	0		
J		J	0	0		
R79D3A	NBES ↓	A	0	45	S	R79103
B		B	0	45	S	
C		C	0	45	S	
R79D5A		A	0	90	S	R79104
B		B	0	90	S	
R79E3B		B	0	45	F	R79105
C		C	0	45	F	
R79E5B		B	0	90	F	R79106
C		C	0	90	F	
R79E7A		A	0	135	F	R79107
B		B	0	135	F	
C		C	0	135	F	

TABLE II. (Concluded)

DATA SET IDENTIFIER	CONFIGURATION	α	β	ϕ	GRIT	GROUP-DATA SET IDENTIFIER
R79F3A	NBES	A	0	45	NO ↓	R79108
B		B	0	45		
C		C	0	45		
D		D	0	45		
E		E	0	45		
F		F	0	45		
G		G	0	45		
H		H	0	45		
I		I	0	45		
J		J	0	45		
R79F5A		A	0	90	NO ↓	R79109
B		B	0	90		
C		C	0	90		
D		D	0	90		
E		E	0	90		
F		F	0	90		
G		G	0	90		
H		H	0	90		
I		I	0	90		
J		J	0	90		
R79F7A		A	0	135	NO ↓	R79110
B		B	0	135		
C		C	0	135		
D		D	0	135		
E		E	0	135		
F		F	0	135		
G		G	0	135		
H		H	0	135		
I		I	0	135		
J		J	0	135		

TABLE III.
MODEL COMPONENT DESCRIPTIONS

MODEL COMPONENT: NOSE - N

GENERAL DESCRIPTION: 162 Inch SRB Nose, cone angle is 18° with a spherical radius nose cap. (The nose was cut to allow for sting mounting when angles of attack from 130° to 190° were tested.)

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	<u>222 in.</u>	<u>1.097 in.</u>
Max Width	<u>162 in.</u>	<u>0.8 in.</u>
Max Depth	<u>162 in.</u>	<u>0.8 in.</u>
Fineness Ratio	<u>1.37</u>	<u>1.37</u>
Area		
Max Cross-Sectional	<u>143.14 ft²</u>	<u>0.503 in.²</u>
Planform	_____	_____
Wetted	_____	_____
Base	<u>143.14 ft²</u>	<u>0.503 in.²</u>
Length (when cut for sting mounting)	<u>54.9 in.</u>	<u>0.271 in.</u>

TABLE III. (Continued)

MODEL COMPONENT: BODY - BGENERAL DESCRIPTION: 162-Inch Solid Rocket Booster Body (The body was cut on its side for sting mounting when angles of attack from 50° to 130° were tested.)

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1711 in.</u>	<u>8.453 in.</u>
Max Width	<u>162</u>	<u>0.8 in.</u>
Max Depth	<u>162</u>	<u>0.8 in.</u>
Fineness Ratio	<u>10.57</u>	<u>10.57</u>
Area		
Max Cross-Sectional	<u>143.14 ft²</u>	<u>0.503 in.²</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u>143.14 ft²</u>	<u>0.503 in.²</u>

TABLE III. (Continued)
MODEL DIMENSIONAL DATA

MODEL COMPONENT : RING, ATTACHMENT, R

GENERAL DESCRIPTION : An attachment ring (used to attach SRB to ET)
is located 1.121 inches model scale (227 inches full scale) forward
of the junction of the SRB body and engine shroud.

DRAWING NUMBER : _____

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	_____	_____
Max Width	_____	0.058
Max Height	_____	0.0595
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III. (Continued)

MODEL COMPONENT: ENGINE/SHROUD - E

GENERAL DESCRIPTION: 162 inch SRB engine shroud/nozzle combination.

Both are symmetrical with the SRB body. (The Engine/Shroud was cut
to allow for sting mounting when angles of attack from 50° to 190°
were tested.

DRAWING NUMBER:

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>Engine Shroud</u>		
Length	<u>118 in.</u>	<u>0.584 in.</u>
Max Width	<u>276 in.</u>	<u>1.363 in.</u>
Max. Depth	<u>276 in.</u>	<u>1.363 in.</u>
Max Cross-Sectional Area	<u>415.48 ft²</u>	<u>1.459 in.²</u>
<u>Engine Nozzle</u>		
Length	<u>53 in.</u>	<u>0.260 in.</u>
Max. Width	<u>205 in.</u>	<u>1.012 in.</u>
Max. Depth	<u>205 in.</u>	<u>1.012 in.</u>
Max Cross-Sectional Area	<u>229.12 ft²</u>	<u>.804 in.²</u>

TABLE III. (Continued)
MODEL DIMENSIONAL DATA

MODEL COMPONENT : STRAKE, TWO-CALIBER

GENERAL DESCRIPTION : The leading edge of the forward strake is located 0.8 inches (model scale) 162 inches (full scale) aft of the junction of nose and body. The trailing edges of the aft strake is located 0.230 inches (model scale) (46.5 inches full scale) forward of the junction of the body and engine shroud.

DRAWING NUMBER : _____

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>324 in.</u>	<u>1.6 in.</u>
Max Width	<u>16.2 in.</u>	<u>0.08 in.</u>
Max Height	<u>16.2 in.</u>	<u>0.08 in.</u>
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III. (Concluded)
MODEL DIMENSIONAL DATA

MODEL COMPONENT : STRAKE (BASIC) ONE-CALIBER

GENERAL DESCRIPTION : The leading edge of the forward strake is
located 0.8 inches (model scale) 162 inches (full scale) aft of the
junction of nose and body. The trailing edge of the aft strake is
located 0.230 inches model scale (46.5 inches full scale) forward
of the junction of body and engine shroud.

DRAWING NUMBER : _____

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Basic)	<u>162 in.</u>	<u>0.80 in.</u>
Max Width	<u>16.2 in.</u>	<u>0.08 in.</u>
Max Height	<u>16.2 in.</u>	<u>0.08 in.</u>
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

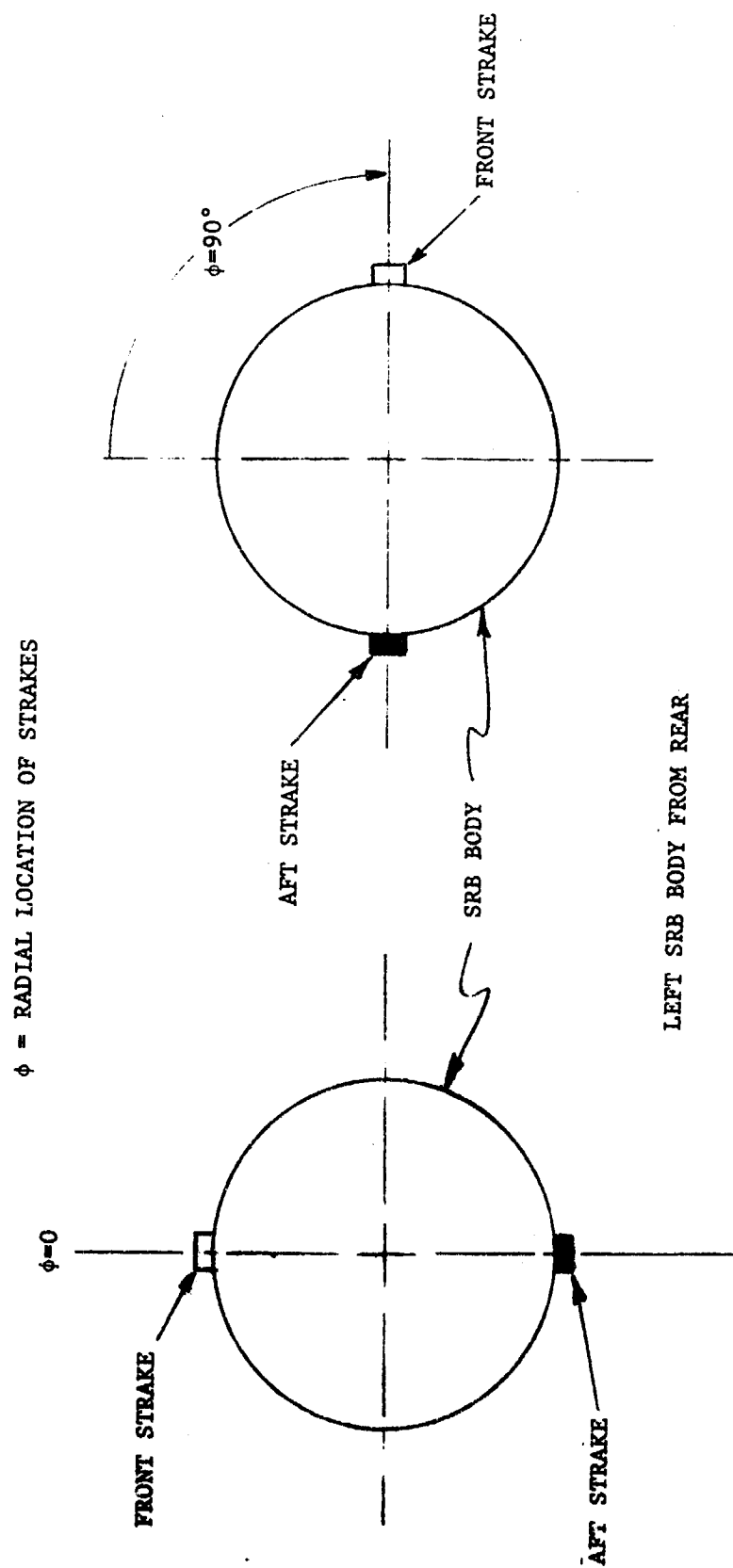


Figure 2. STRAKE RADIAL LOCATION AND SIGN CONVENTION

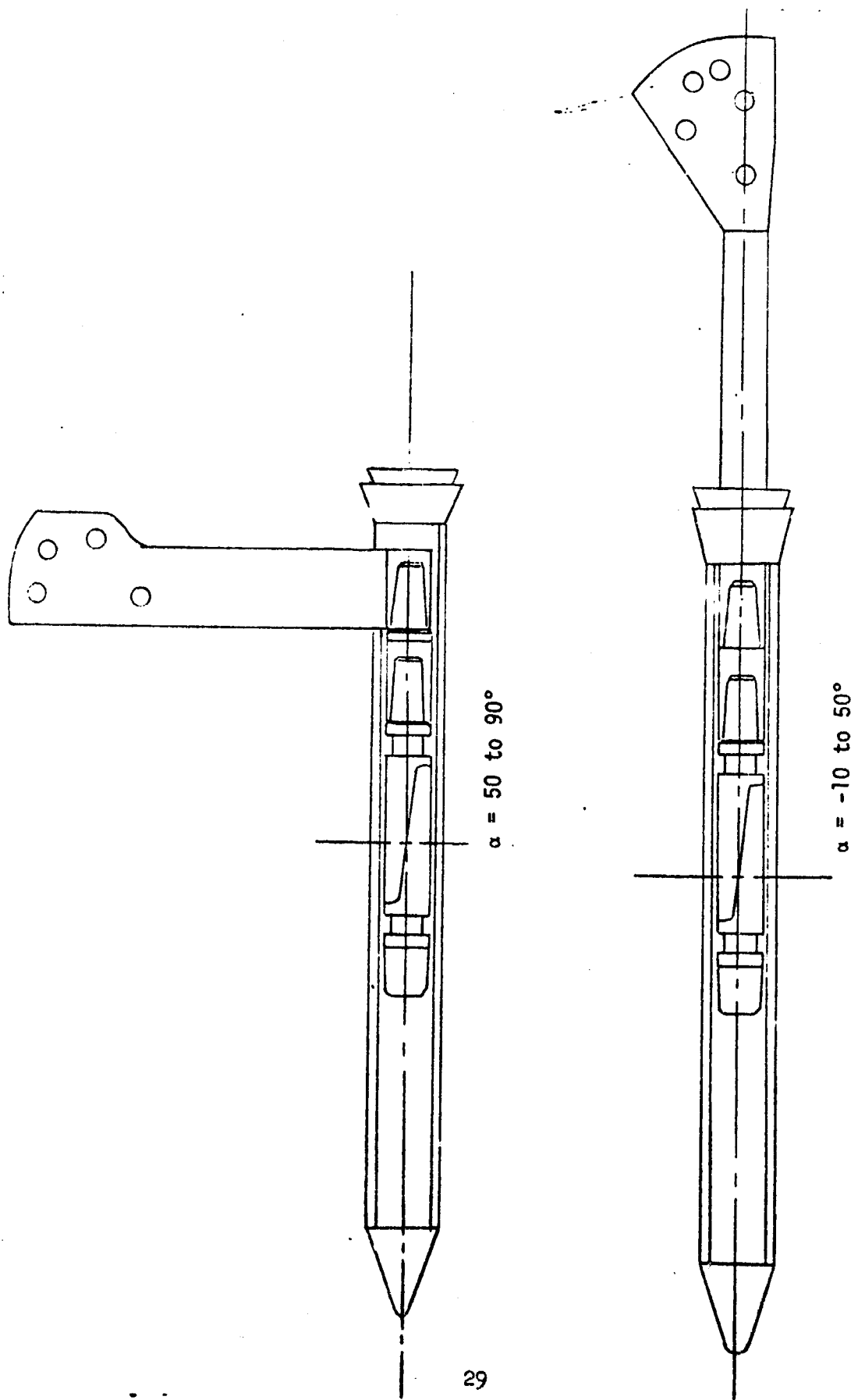


Figure 3. MOUNTING ARRANGEMENTS FOR ANGLE OF ATTACK - 10 TO 90 DEGREES

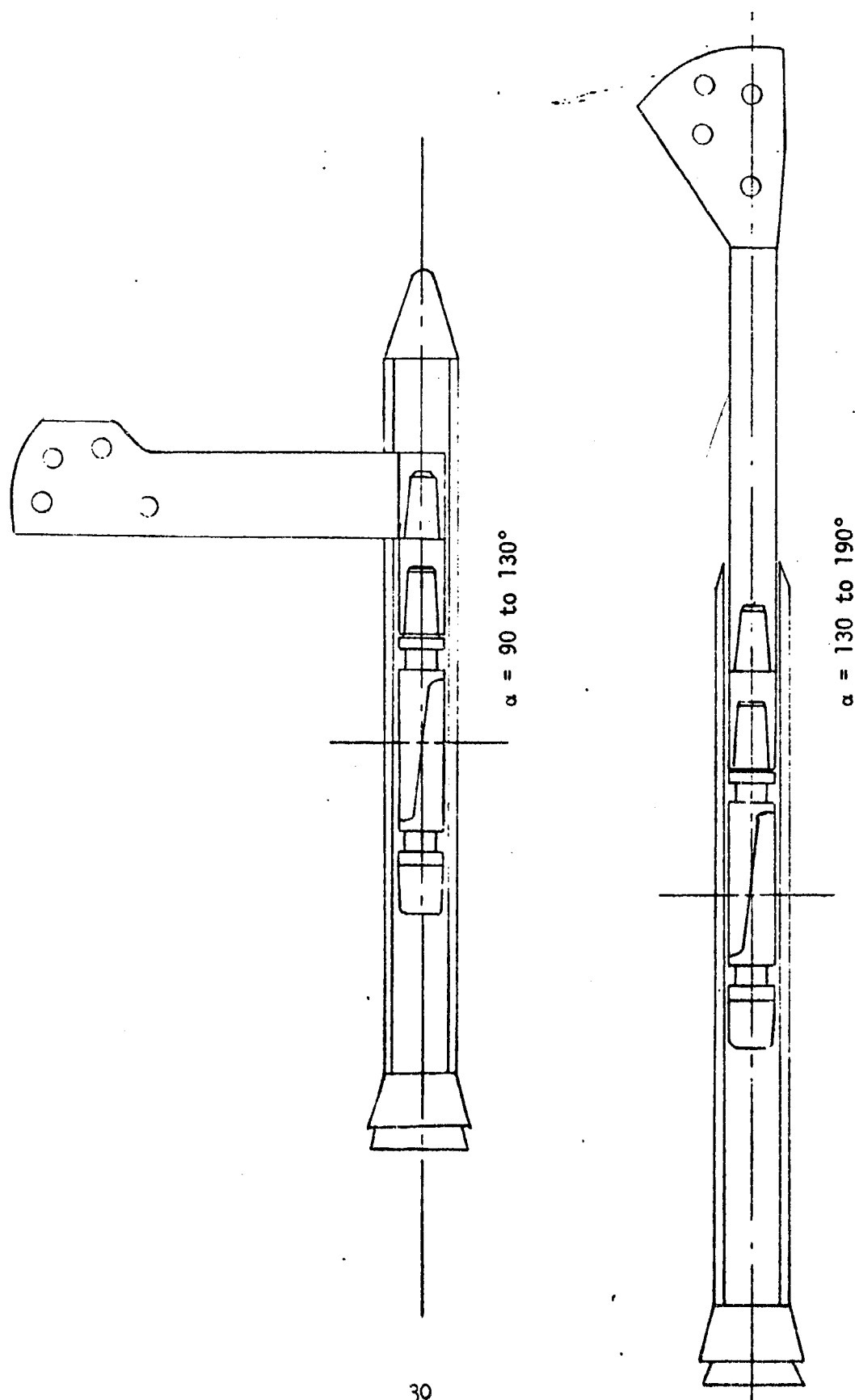


Figure 4. MOUNTING ARRANGEMENTS FOR ANGLE OF ATTACK 90 TO 190 DEGREES

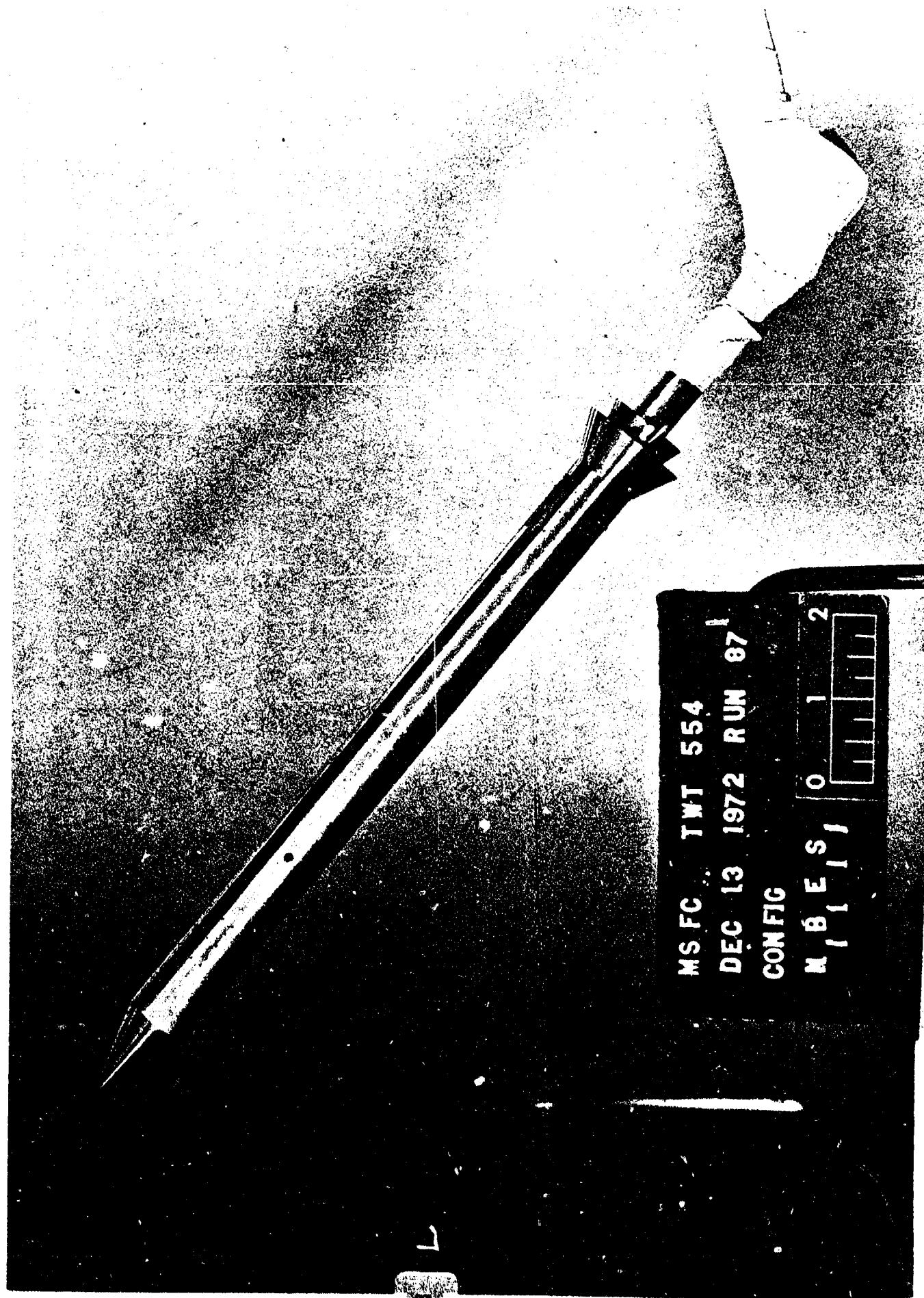
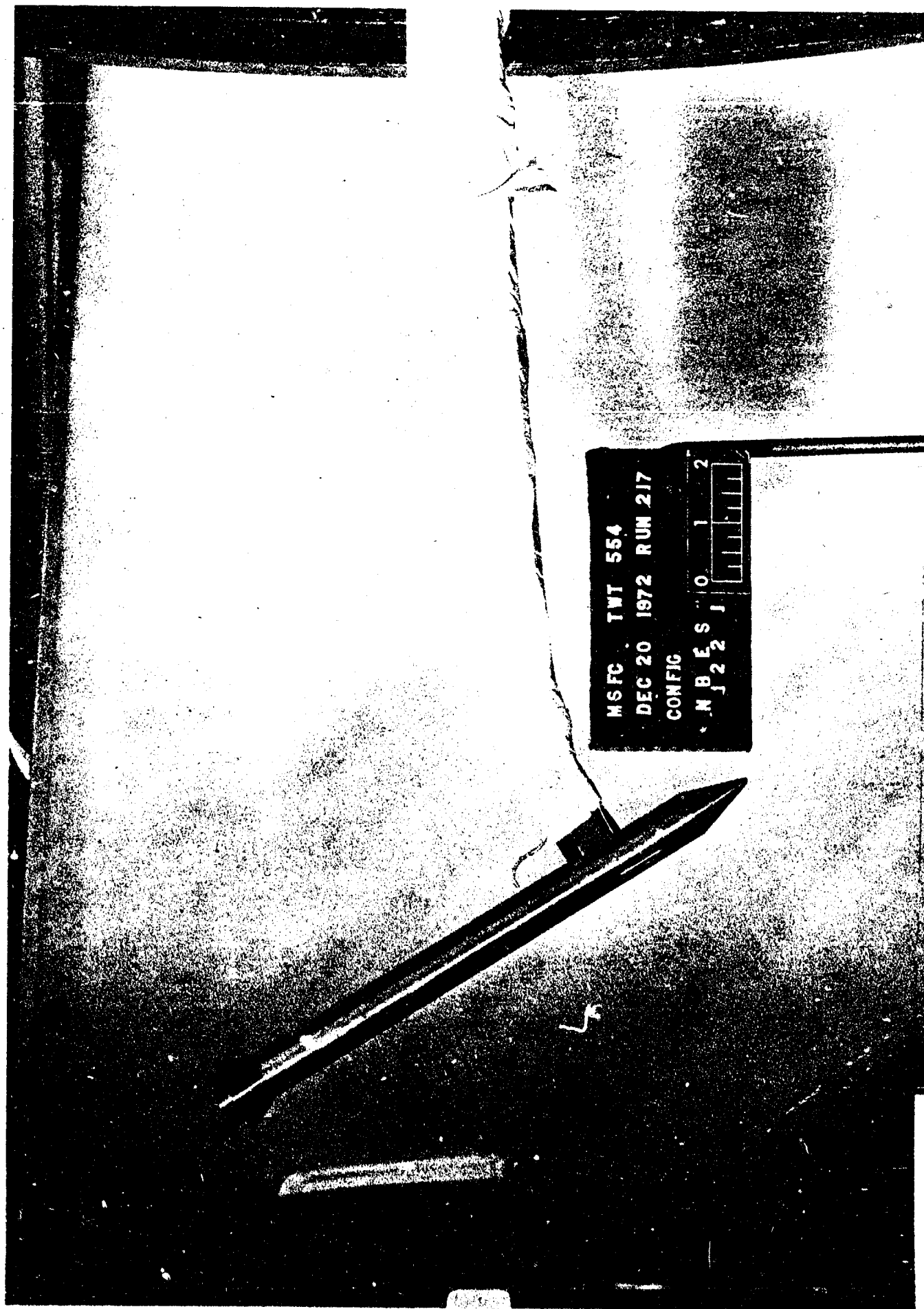


Figure 5. PHOTOGRAPH OF TUNNEL INSTALLATION OF SRB W/STRAKES @ α RANGE OF -10° TO 50°

NASA-MSFC
S&E-Aero-AE

12-13-72

162-1-72



MSFC TWT 554
 DEC 20 1972 RUN 217
 CONFIG
 N B E S
 J 2 2 J 0 1 2

Figure 6. PHOTOGRAPH OF TUNNEL INSTALLATION OF SRB W/STRAKES @ α RANGE OF 90° TO 130°

12-20-72

165 - 72

NASA-MSFC
 S&E-Aero-AE

MSFC TWT 554

DEC 14 1972 RUN 124

CONFIG

N B E S
2 2 2 1



FIGURE 7. PHOTOGRAPH OF TUNNEL INSTALLATION OF SRB W/STRAKES @ RANGE OF 130° TO 190°

12-14-72

163-1-72

NOTES
SEE PAGE 7-16

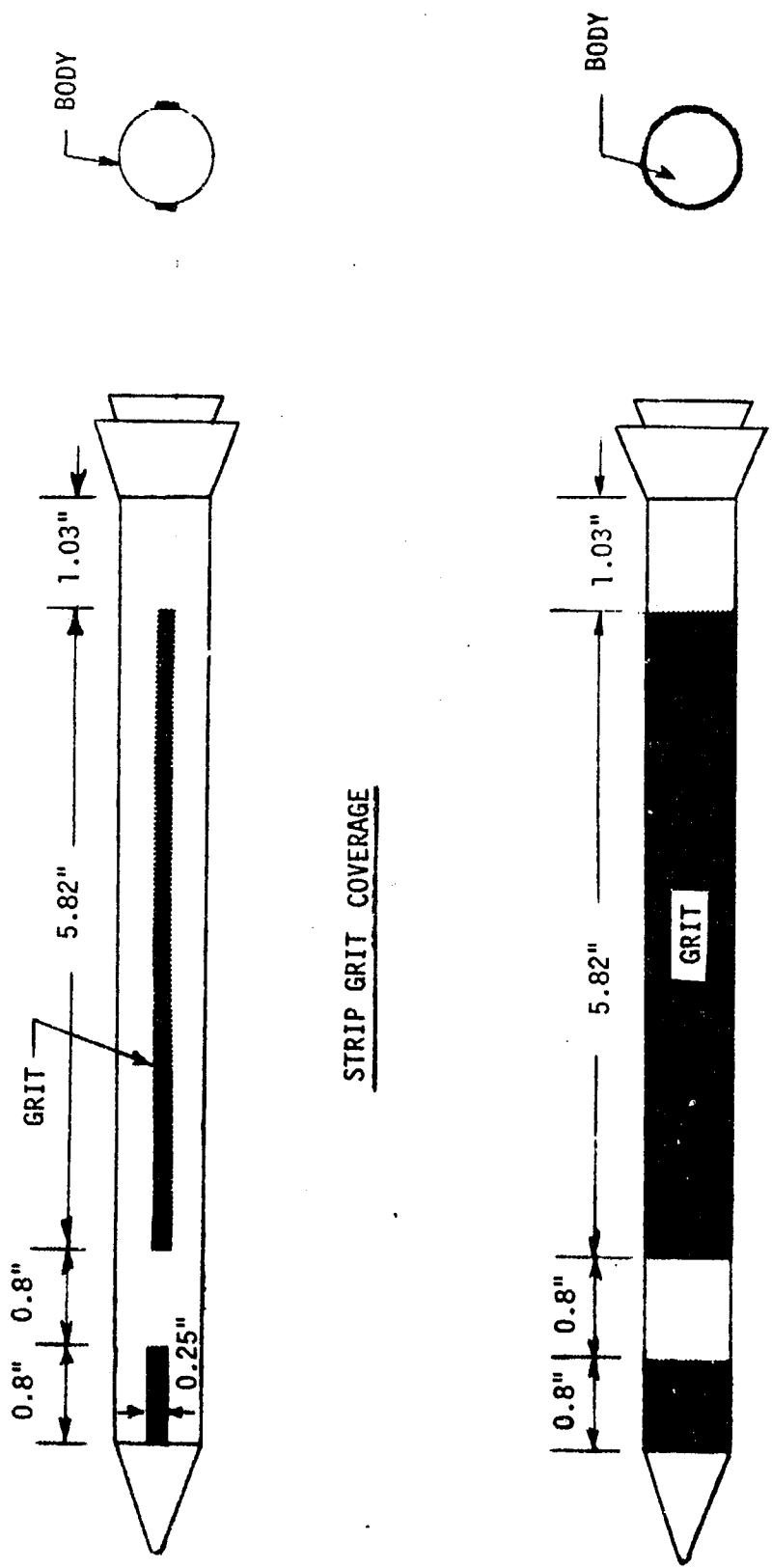


Figure 8. GRIT PATTERNS USED IN TWT 554

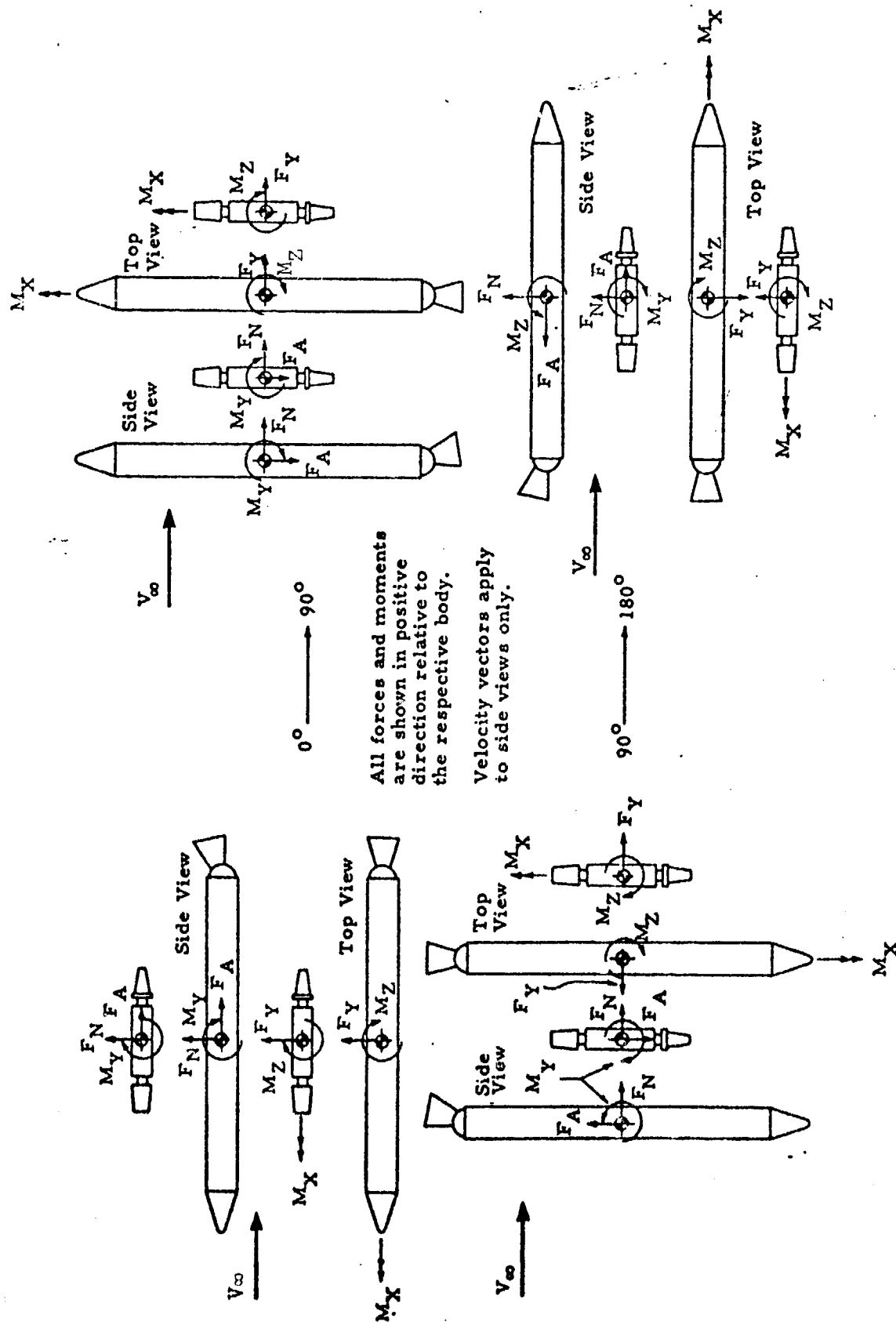
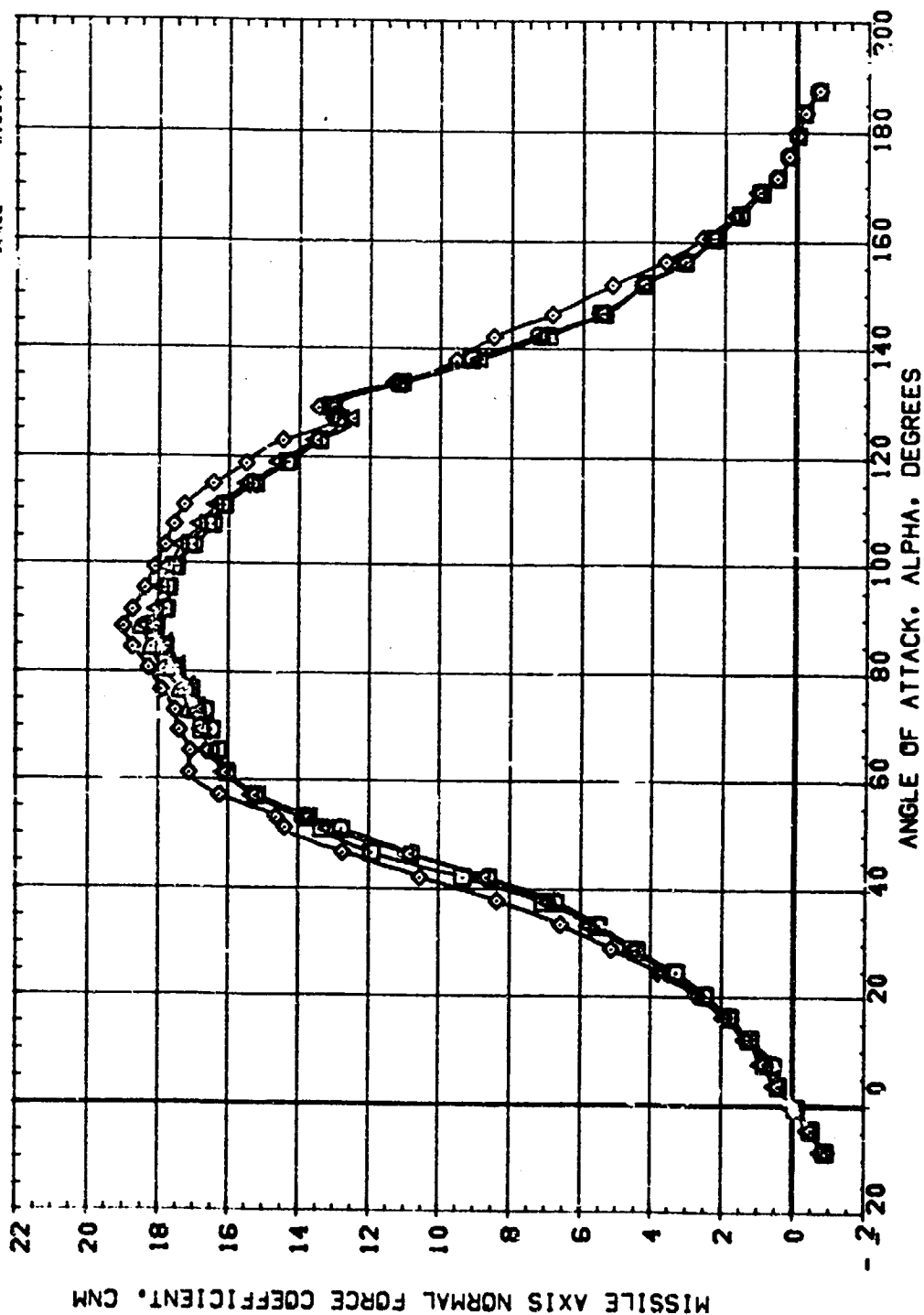


Figure 9. RELATION OF BALANCE AXIS TO MISSILE AXIS

DATA FIGURES

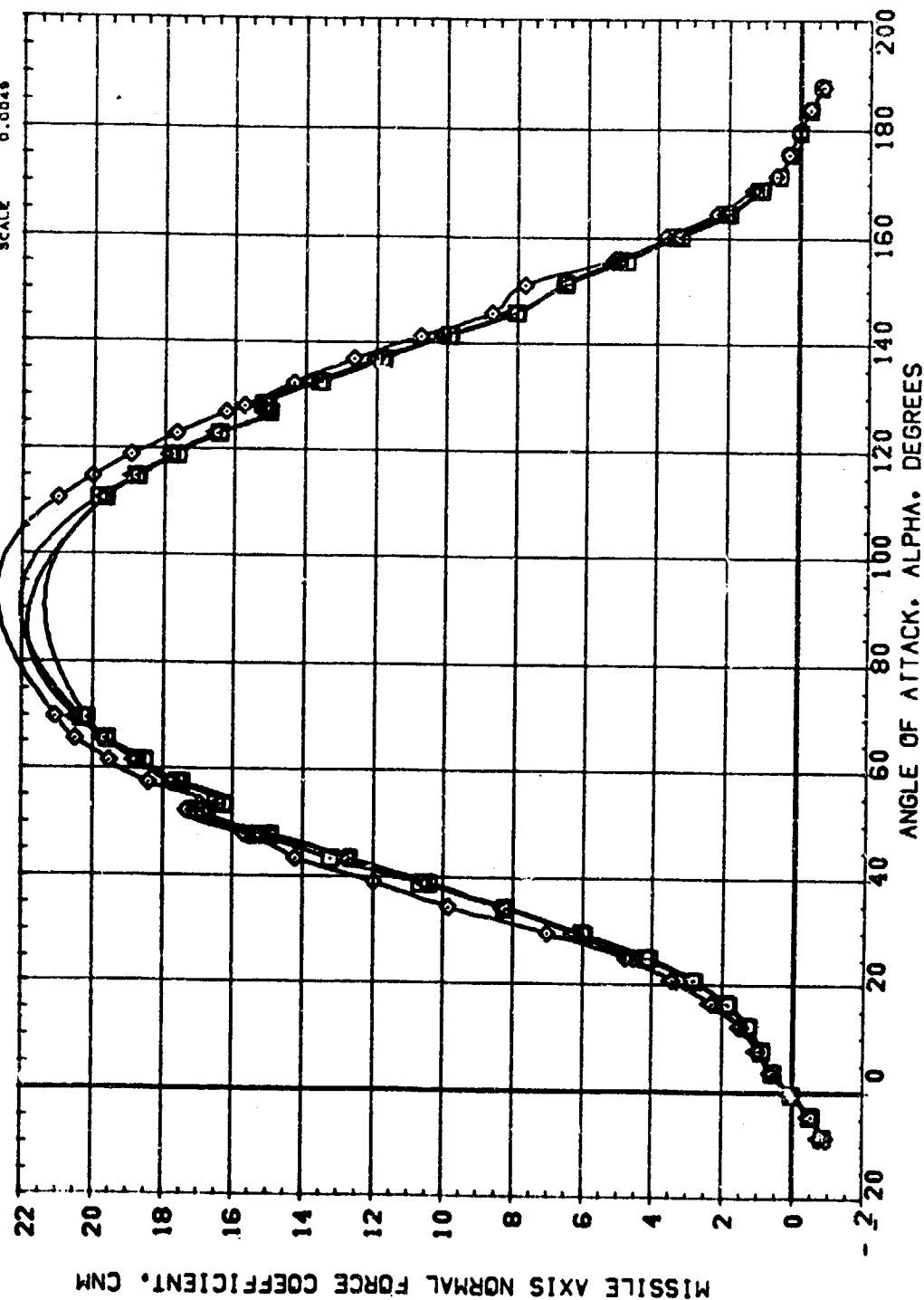
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	BETA	PHI	FWDS TH	APR TH	REFERENCE INFORMATION
00704	12791021	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791022	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791023	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791024	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791025	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791026	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791027	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791028	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791029	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791030	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791031	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791032	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791033	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791034	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791035	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791036	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791037	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791038	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791039	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791040	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791041	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791042	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791043	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791044	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791045	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791046	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791047	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791048	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791049	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791050	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791051	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791052	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791053	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791054	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791055	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791056	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791057	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791058	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791059	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791060	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791061	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791062	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791063	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791064	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791065	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791066	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791067	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791068	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791069	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791070	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791071	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791072	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791073	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791074	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791075	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791076	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791077	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791078	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791079	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791080	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791081	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791082	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791083	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791084	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791085	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791086	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791087	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791088	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791089	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791090	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791091	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791092	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791093	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791094	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791095	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791096	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791097	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791098	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791099	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791100	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791101	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791102	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791103	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791104	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791105	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791106	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791107	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791108	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791109	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791110	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791111	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791112	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791113	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791114	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791115	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791116	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791117	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791118	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791119	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791120	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791121	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791122	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791123	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791124	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791125	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791126	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791127	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791128	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791129	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791130	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791131	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791132	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791133	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791134	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791135	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791136	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791137	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791138	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791139	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791140	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791141	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791142	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791143	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791144	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791145	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791146	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791147	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791148	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791149	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791150	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791151	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791152	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791153	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791154	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791155	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791156	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791157	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791158	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791159	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791160	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791161	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791162	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791163	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791164	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791165	MPC 334 (3A1P)	0.000	0.000	0.000	0.000	8A1M
	12791166	PRR/3RB (NO CRT)	0.000	0.000	0.000	0.000	8A1M
	12791167	MPC 334 (3A1P)	0.000	0.000			



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

$$(\hat{B})_{MACH} = .90$$

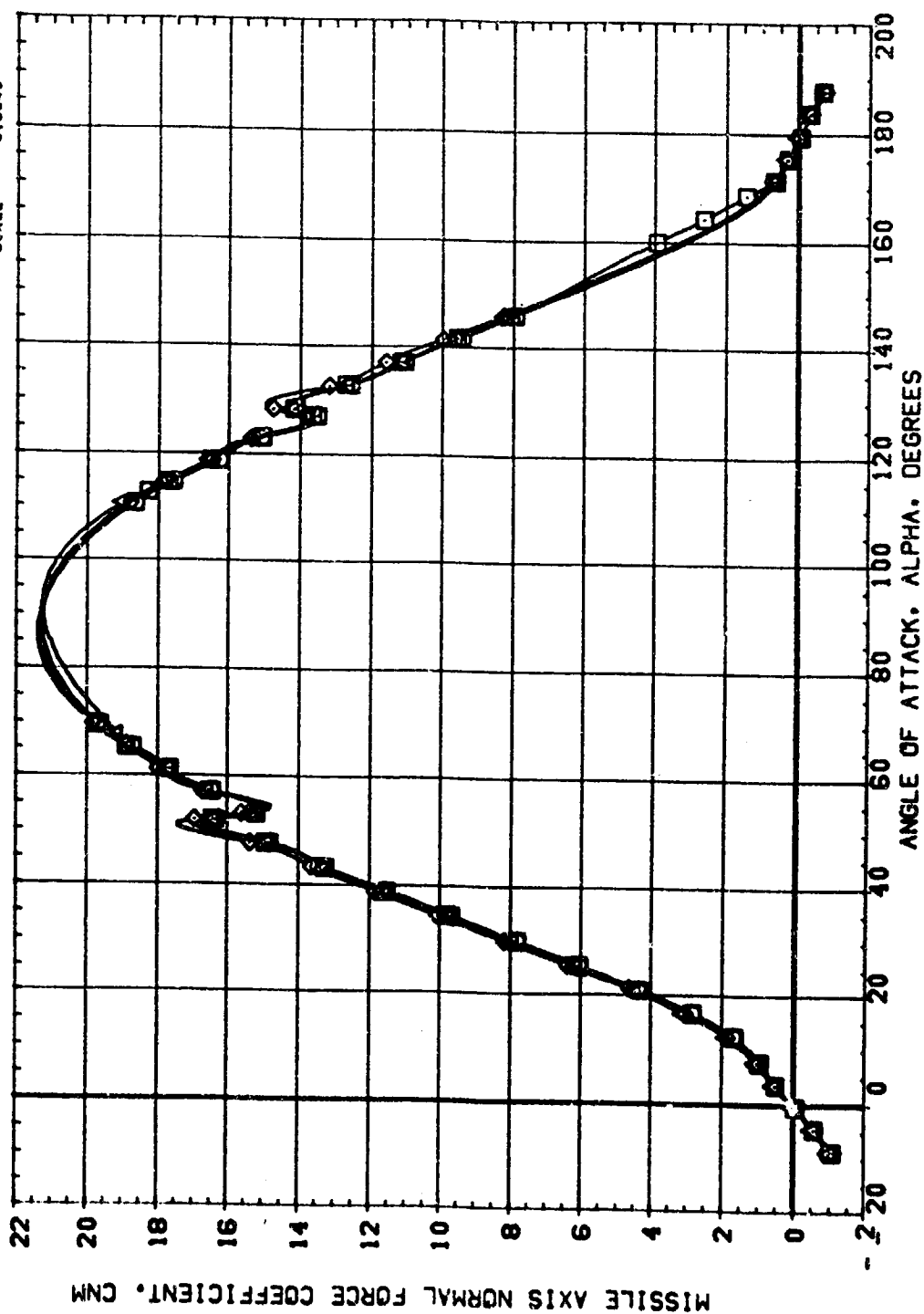
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PMI	PMOSTK	APTSTK	REFERENCE INFORMATION
(279102)	MSPC 554 (SA1P) PRR/SRS (NO GRIT)	0.000	0.000	0.000	0.000	9REF 0.5030 59.1M.
(279103)	MSPC 554 (SA1P) PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	1REF 0.6000 1NCH
(279109)	MSPC 554 (SA1P) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	2REF 0.8000 1NCH
(279110)	MSPC 554 (SA1P) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	3REF 0.8810 1NCH
(279122)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	4MRP 0.0000
(279142)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	5MRP 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PAOTK	APTATK	REFERENCE INFORMATION
(279102)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRP 0.3030 39.1M.
(279103)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 INCH
(279104)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BRP 0.8000 INCH
(279110)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 6.0810 INCH
(279122)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000
(279123)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0049



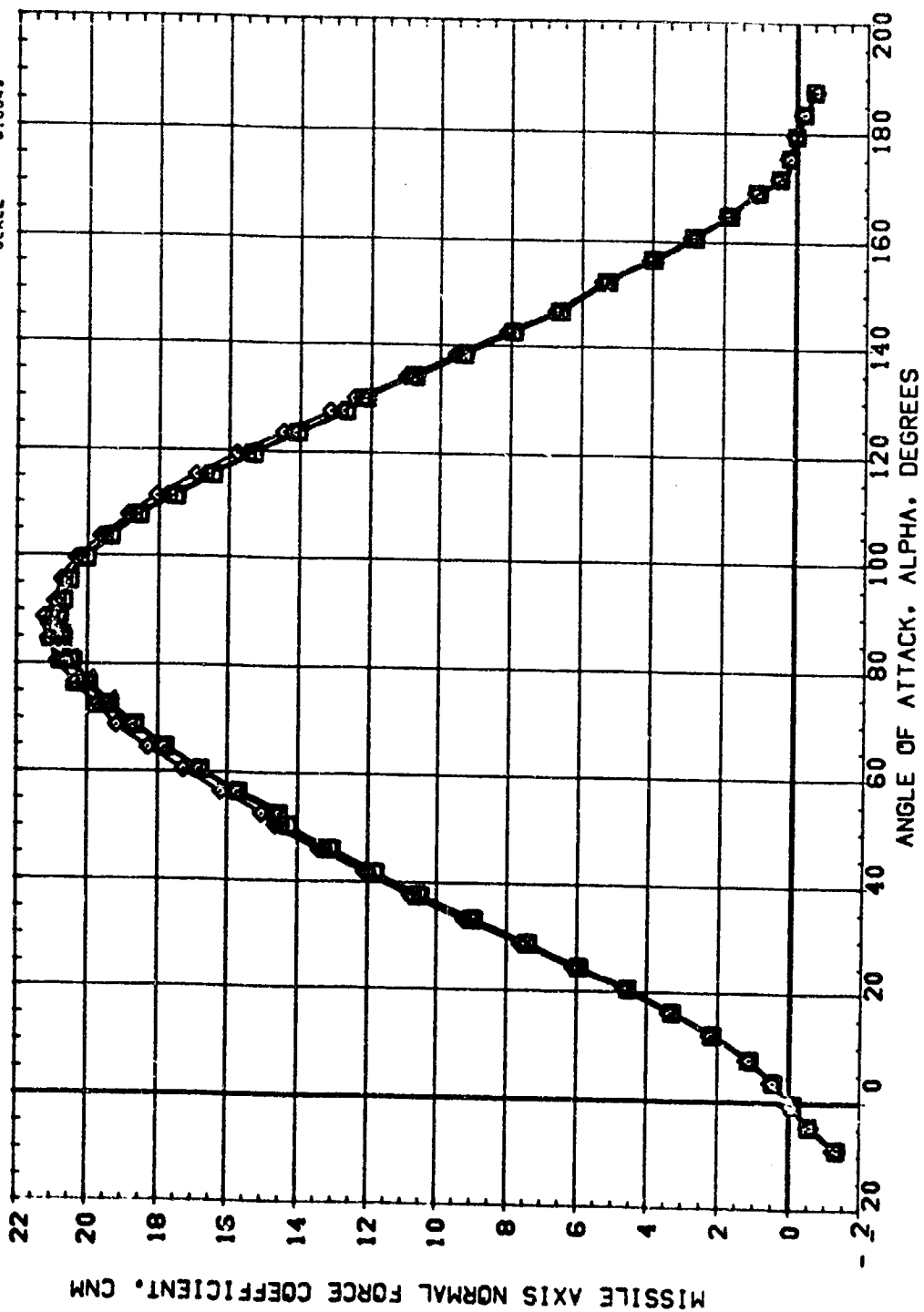
EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(O)MACH = 1.96

PAGE

4

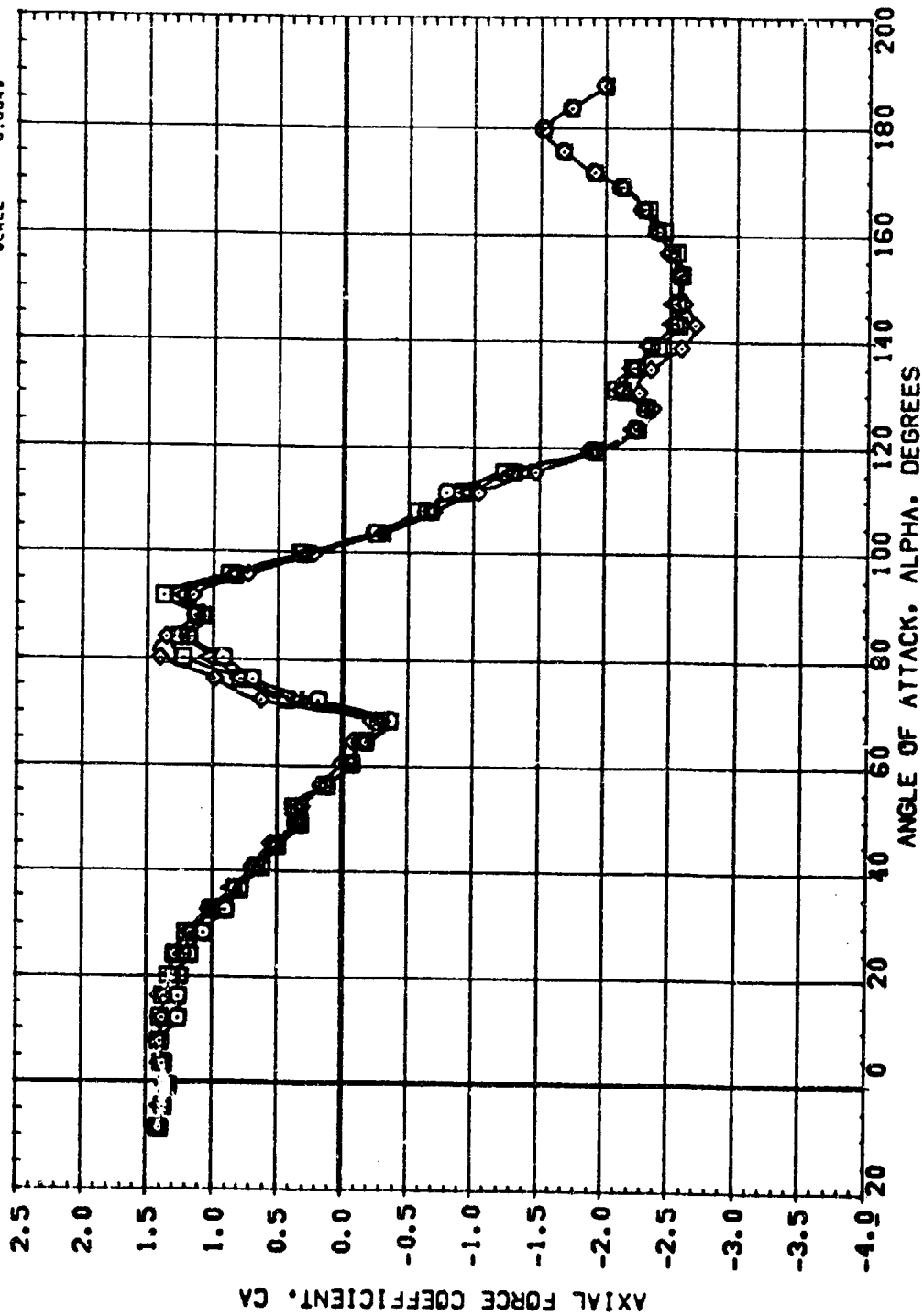
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION
(279102)	WSPC 334 (SA1P) PRR/SBS (NO CRIT)	0.000	0.000	0.000	0.000	SRFP 0.5030 38.1M.
(279108)	WSPC 334 (SA1P) PRR/SBS (NO CRIT)	0.000	45.000	1.100	1.100	LRFP 0.8000 1MCH
(279109)	WSPC 334 (SA1P) PRR/SBS (NO CRIT)	0.000	90.000	1.100	1.100	SRFP 0.8000 1MCH
(279110)	WSPC 334 (SA1P) PRR/SBS (NO CRIT)	0.000	135.000	1.100	1.100	ZMRP 6.0810 1MCH
(279122)	WSPC 334 (SA1P) PRR/SBS (NO CRIT)	0.000	22.500	1.100	1.100	ZMRP 0.0000
(279142)	WSPC 334 (SA1P) PRR/SBS (NO CRIT)	0.000	87.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 3.48

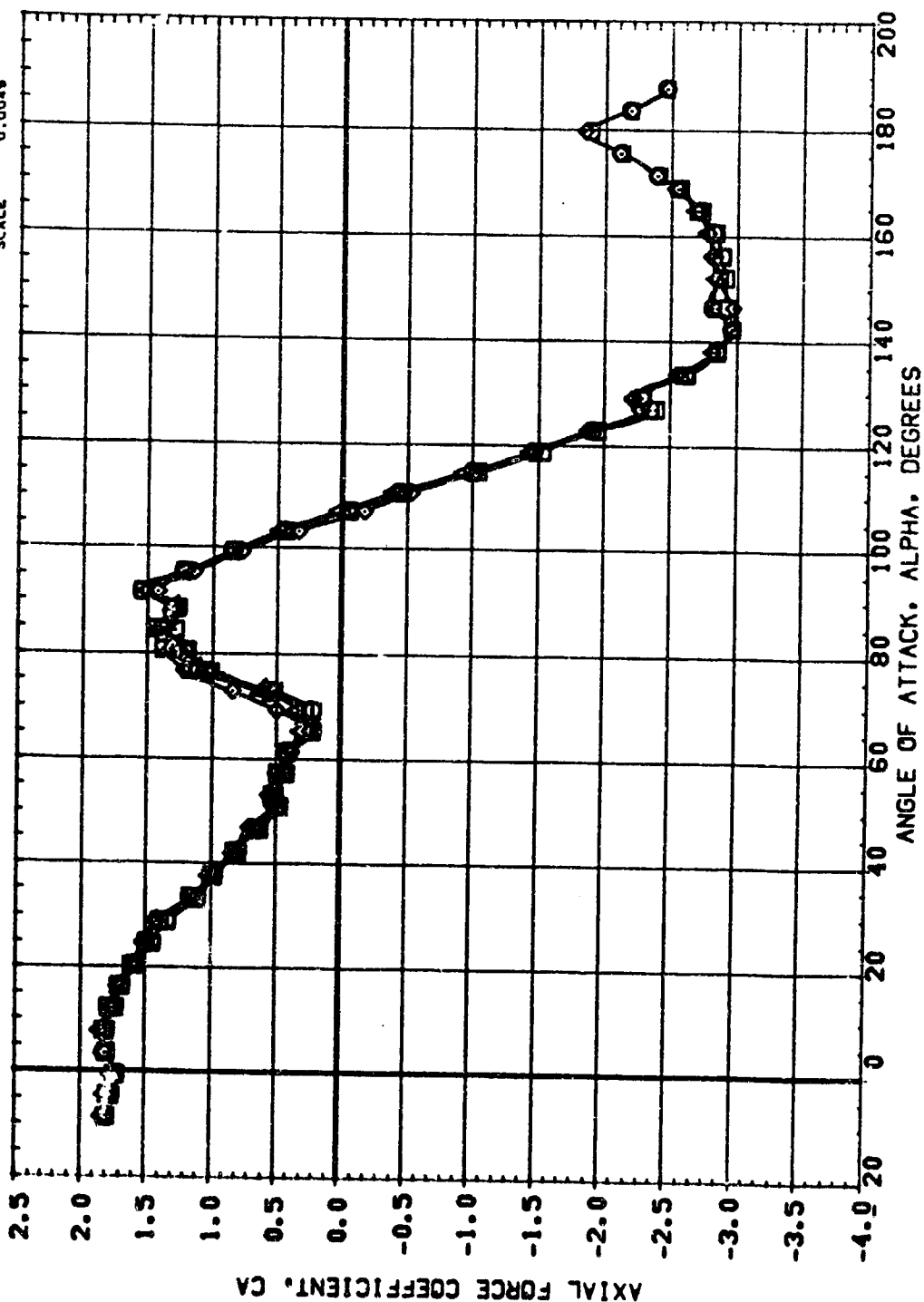
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BET	PHI	P408TK	APTATK	REFERENCE INFORMATION
(279102)	MSFC 954 (8A1P) PRR/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 80.1M.
(279103)	MSFC 954 (8A1P) PRR/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 1MCH
(279104)	MSFC 954 (8A1P) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SREP 0.8000 1MCH
(279105)	MSFC 954 (8A1P) PRR/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 8.0810 1MCH
(279106)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000
(279107)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0000
(279108)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(M)MACH = .60

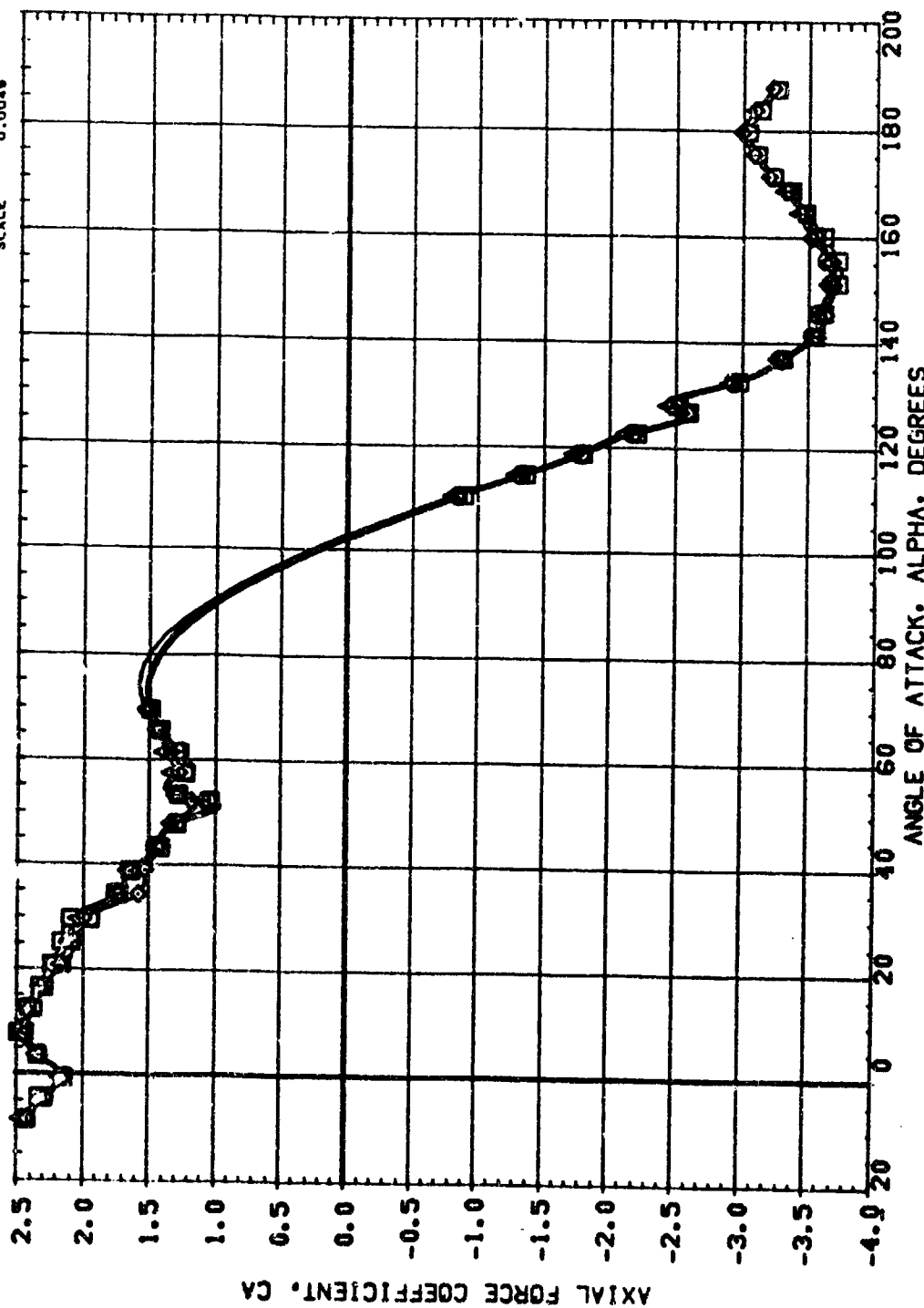
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION
(279102)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.0000 88.14
(279103)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	48.000	1.100	1.100	LREP 0.0000 88.14
(279104)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SREP 0.0000 88.14
(279105)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 0.0000 88.14
(279106)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	180.000	1.100	1.100	YMRP 0.0000 88.14
(279107)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	225.000	1.100	1.100	ZMRP 0.0000 88.14
(279108)	NSPC 334 (BALP) PER/SRB (NO GRIT)	0.000	270.000	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

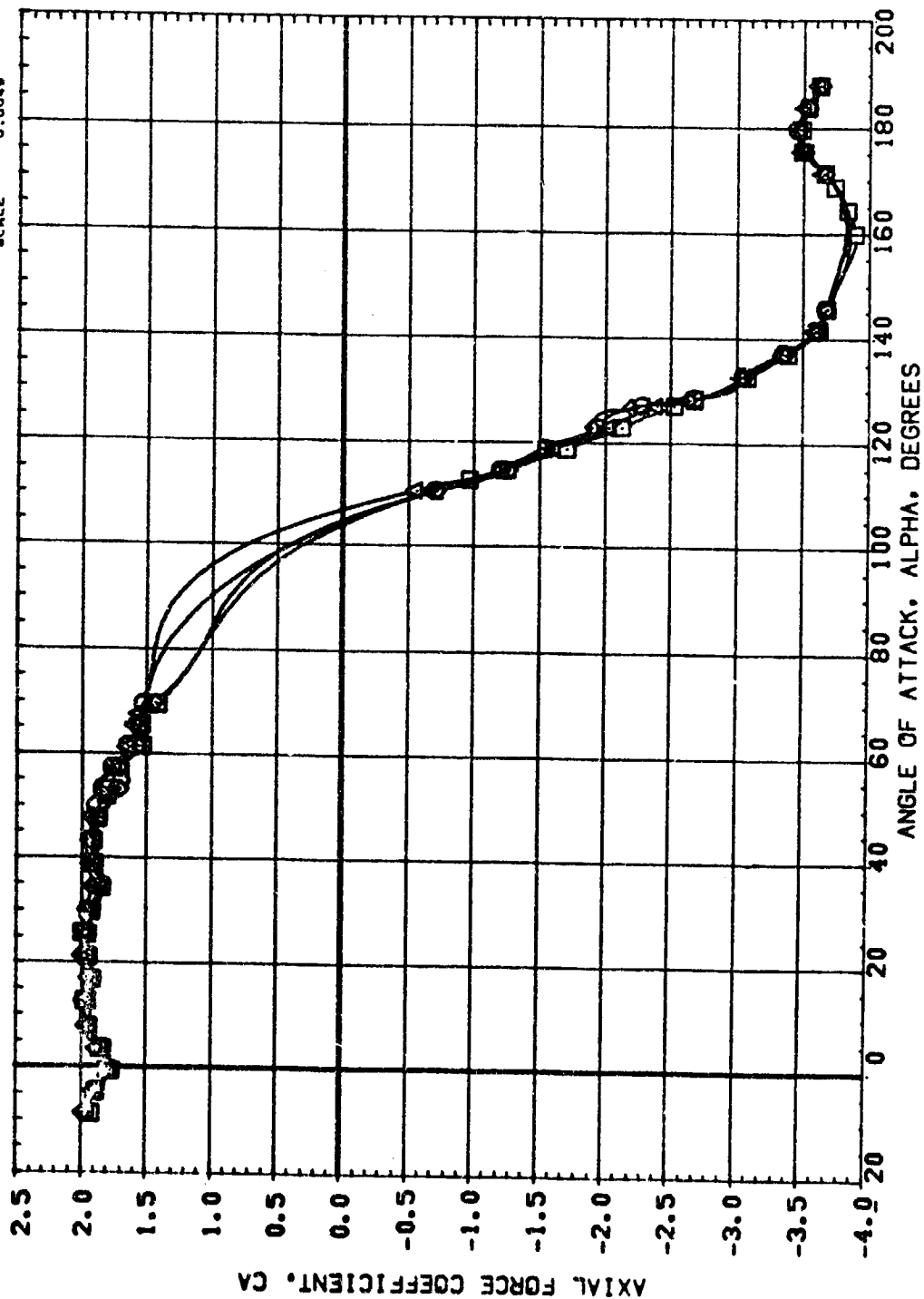
(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION
(271102)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRP 0.3030 53.1M.
(271103)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LRP 0.6000 1MCH
(271104)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	90.000	1.100	1.100	DRP 0.6000 1MCH
(271105)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	135.000	1.100	1.100	MRP 0.6010 1MCH
(271106)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	180.000	1.100	1.100	TRP 0.6000 1MCH
(271107)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	225.000	1.100	1.100	2MRP 0.6000 1MCH
(271108)	WSPC S34 (SAIP) PER/SRB (NO GRIT)	0.000	270.000	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(C)MACH = 1.20

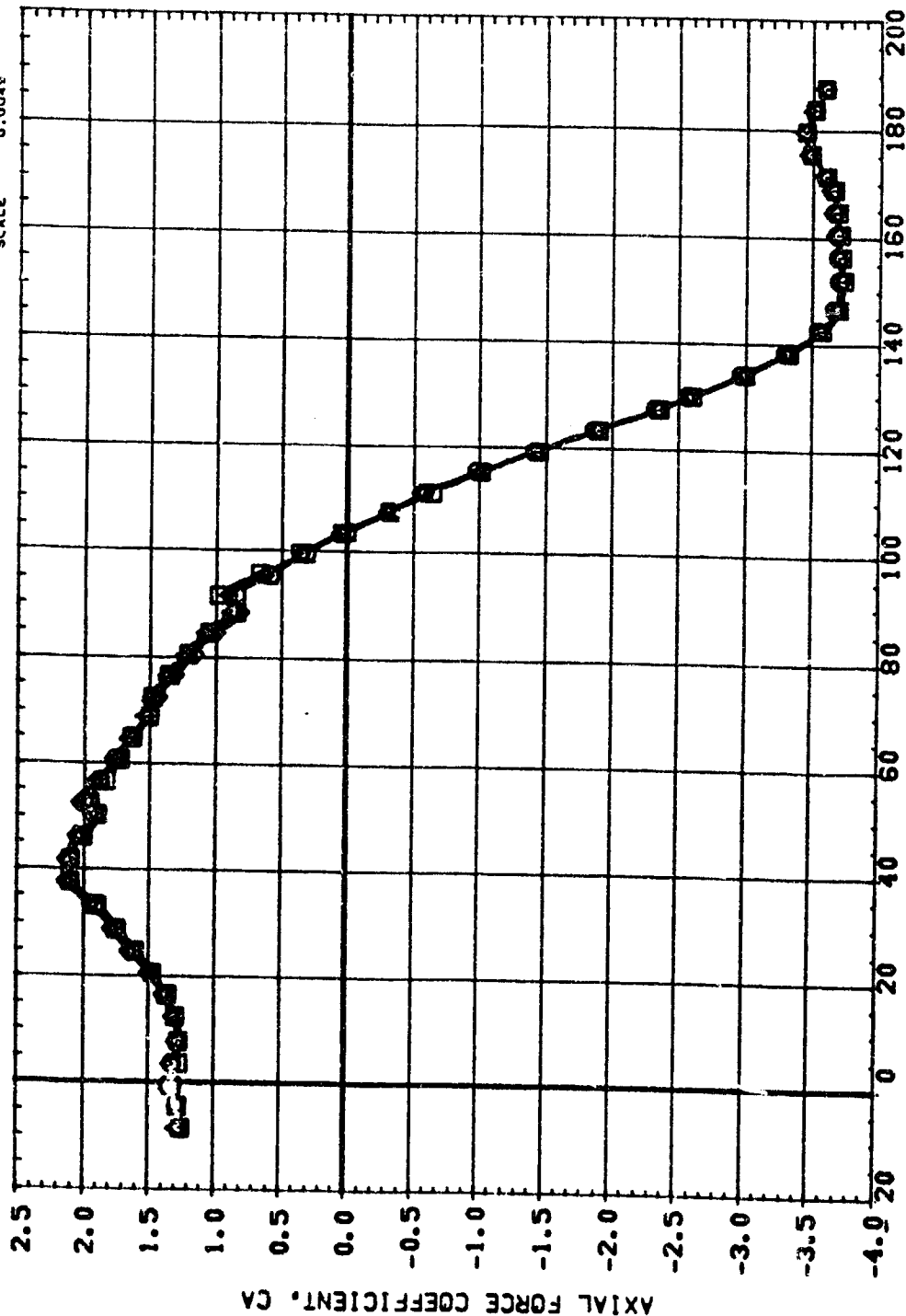
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PHOSTK	APTSTK	REFERENCE INFORMATION
(279102)	MSPC 554 (BA1P) PRR/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRFP 0.5030 30.1M.
(279106)	MSPC 554 (BA1P) PRR/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LRFP 0.8000 1NCH
(279108)	MSPC 554 (BA1P) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BRFP 0.8000 1NCH
(279110)	MSPC 554 (BA1P) PRR/SRB (NO GRIT)	0.000	135.000	1.100	1.100	YMRP 6.0010 1NCH
(279122)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000 0.0000
(279142)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	YMRP 0.0000 0.0000



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

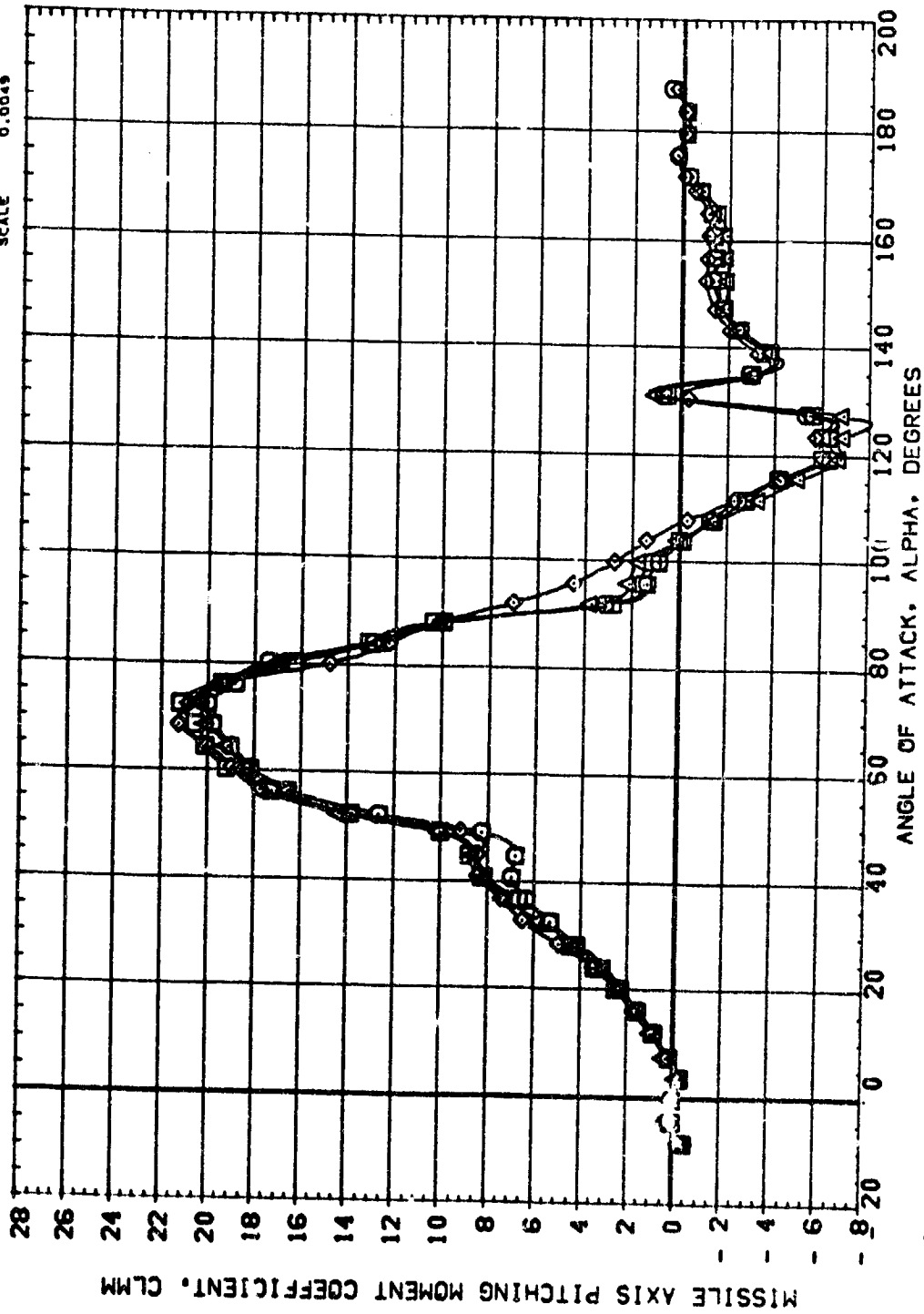
(D) MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PM09.5	APTATK	REFERENCE INFORMATION
(279102)	NSPC 334 (3A1P) PRS/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 50.1M.
(279103)	NSPC 334 (3A1P) PRS/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.6000 INCH
(279104)	NSPC 334 (3A1P) PRS/SRS (NO GRIT)	0.000	90.000	1.100	1.100	BREP 0.8000 INCH
(279110)	NSPC 334 (3A1P) PRS/SRS (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 0.0810 INCH
(279120)	NSPC 334 (3A1P) PRS/SRS (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000
(279130)	NSPC 334 (3A1P) PRS/SRS (NO GRIT)	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0048



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(E)MACH = 3.46

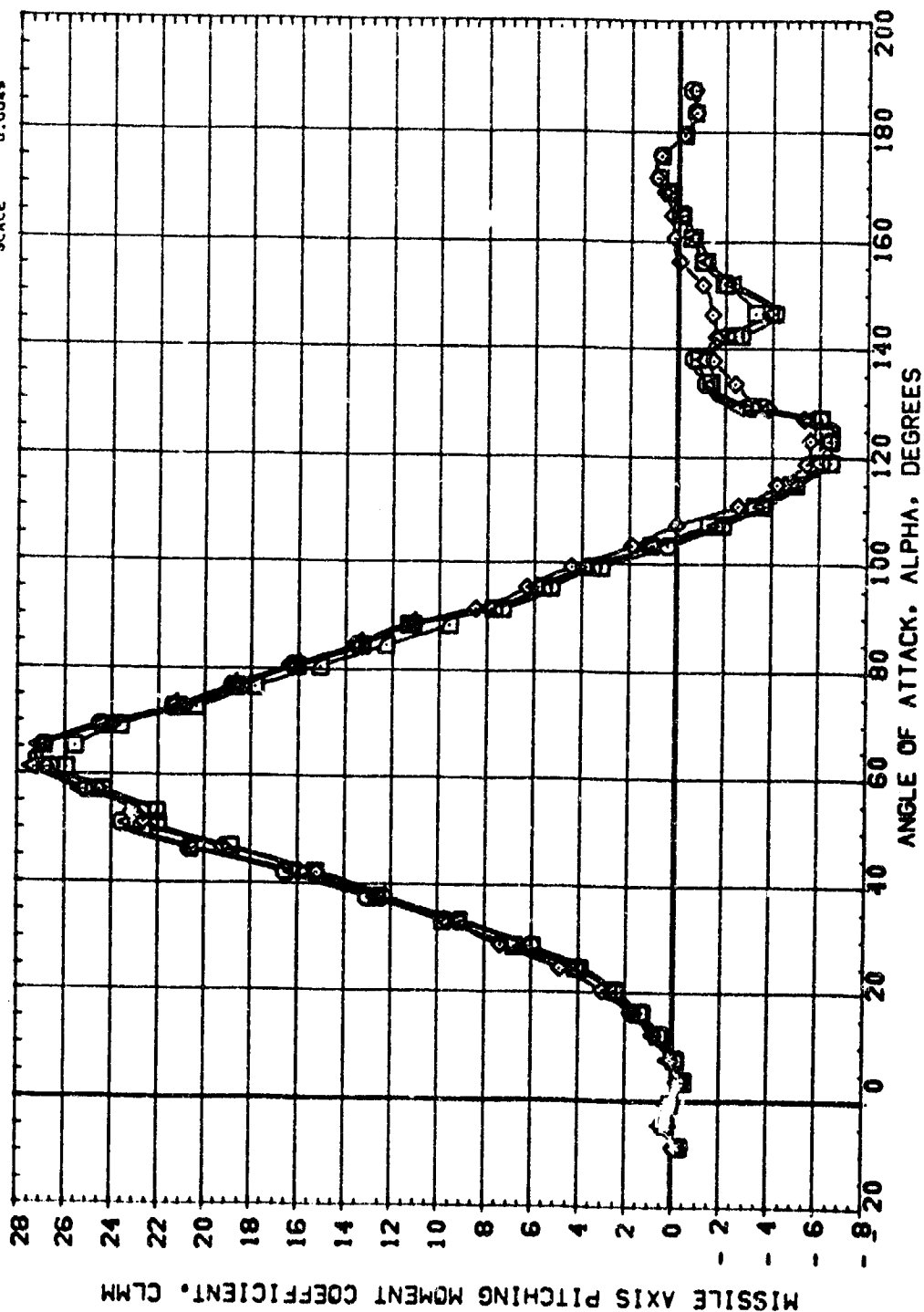
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTATK	REFERENCE INFORMATION
(279102)	NSPC S34 (SALP) PAR/SAB (NO CRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 INCH
(279103)	NSPC S34 (SALP) PAR/SAB (NO CRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 INCH
(279104)	NSPC S34 (SALP) PAR/SAB (NO CRIT)	0.000	90.000	1.100	1.100	BREP 0.8000 INCH
(279105)	NSPC S34 (SALP) PAR/SAB (NO CRIT)	0.000	135.000	1.100	1.100	XMRP 6.0010 INCH
(279106)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000
(279107)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

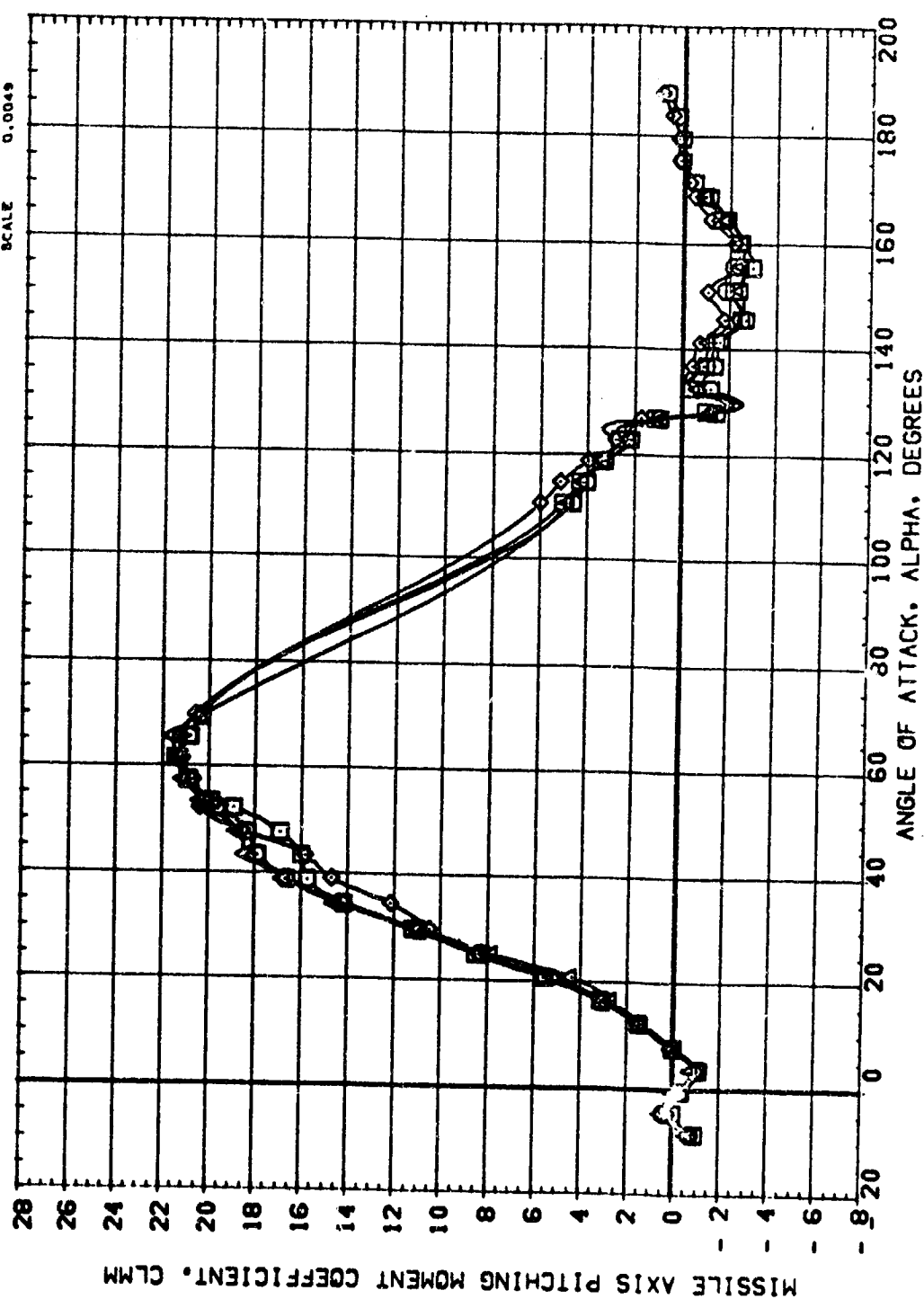
(A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSTK	REFERENCE INFORMATION
(779102)	NSPC 534 (SA1P) PRB/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 56.1M.
(779103)	NSPC 534 (SA1P) PRB/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 1MCH
(779104)	NSPC 534 (SA1P) PRB/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SRP 0.8000 1MCH
(779105)	NSPC 534 (SA1P) PRB/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 6.0810 1MCH
(779202)	NSPC 534 (SA1P) PRB/SRB (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000
(779203)	NSPC 534 (SA1P) PRB/SRB (NO GRIT)	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0045



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

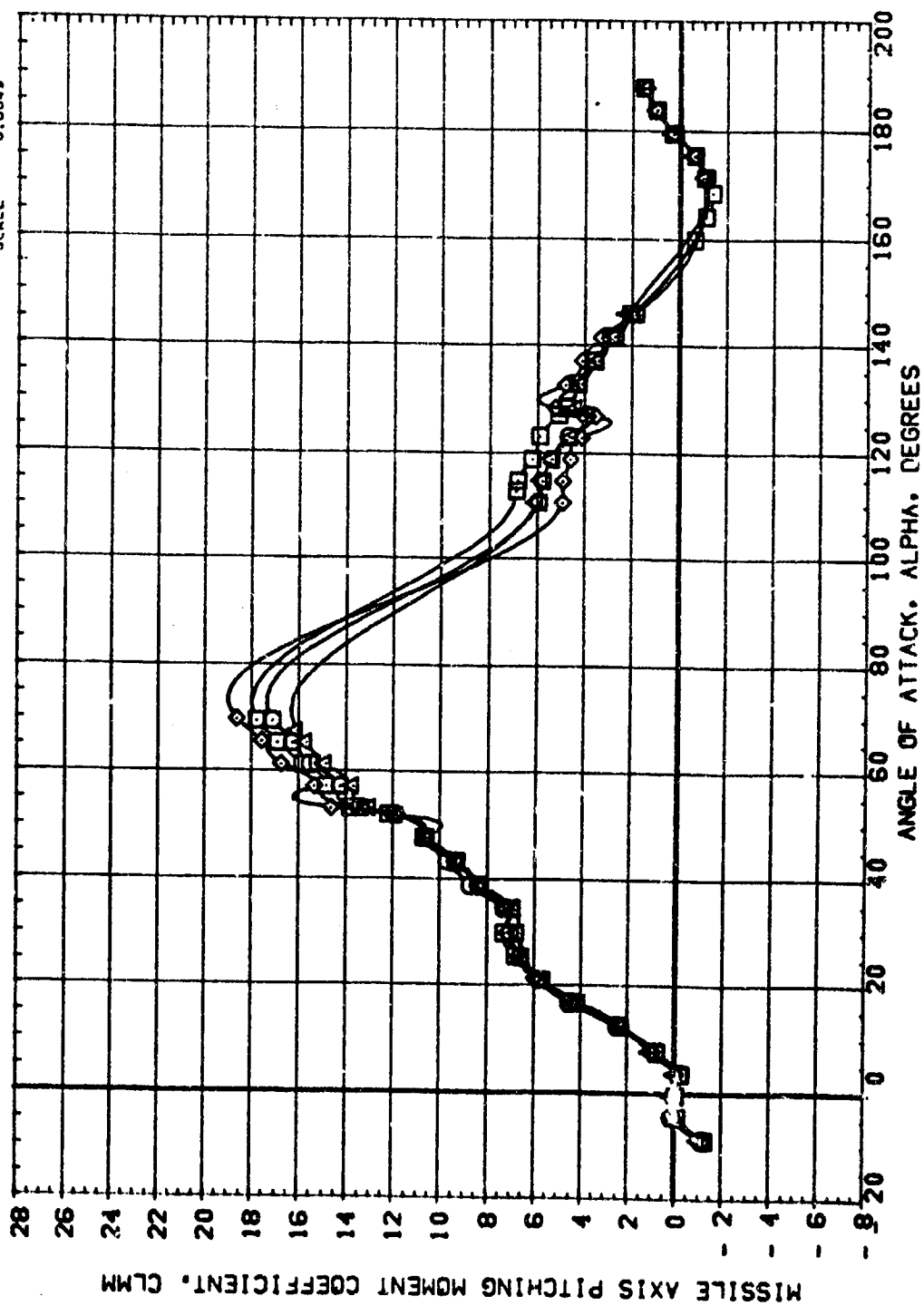
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APYSTK	REFERENCE INFORMATION
(270102)	MSPC 554 (BA1P) PER/SRB (NO GRIT)	0.000	0.000	0.000	0.000	AREP 0.5030 82.1M.
(270106)	MSPC 554 (BA1P) PER/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 11CM
(270109)	MSPC 554 (BA1P) PER/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BREP 0.8000 11CM
(270110)	MSPC 554 (BA1P) PER/SRB (NO GRIT)	0.000	135.000	1.100	1.100	THRP 6.0810 11CM
(270120)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	THRP 0.0000
(270121)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	THRP 0.0000
(270122)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 1.20

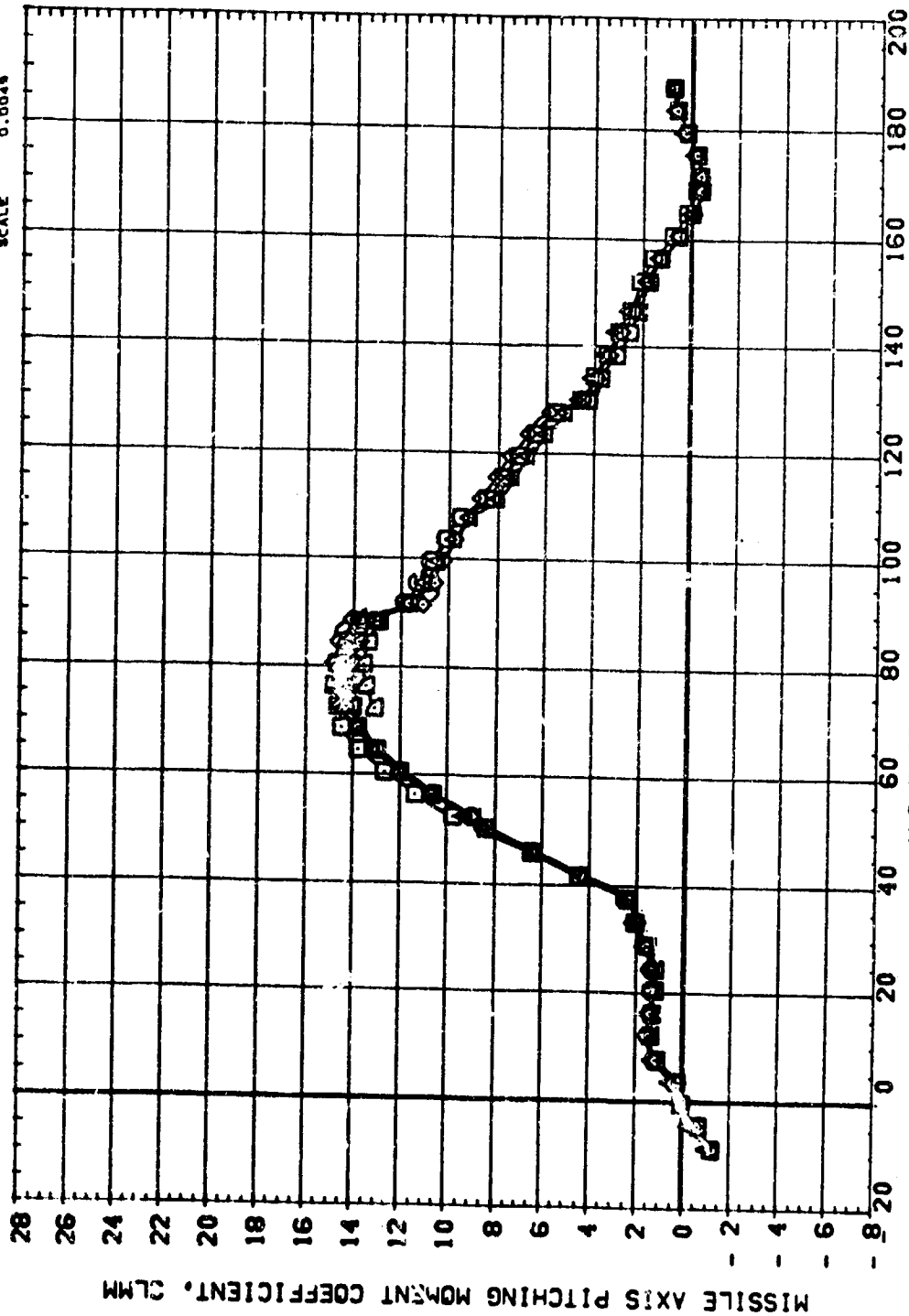
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION
(279108)	NSPC 534 (8A1P) PRP/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRFP 0.9030 30.1N.
(279109)	NSPC 534 (8A1P) PRP/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LRFP 0.8000 1NCH
(279110)	NSPC 534 (8A1P) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BRFP 0.8000 1NCH
(279111)	NSPC 534 (8A1P) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	ZHRP 8.0810 1NCH
(279122)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YHRP 0.0000
(279123)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZHRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS --

(D)MACH = 1.96

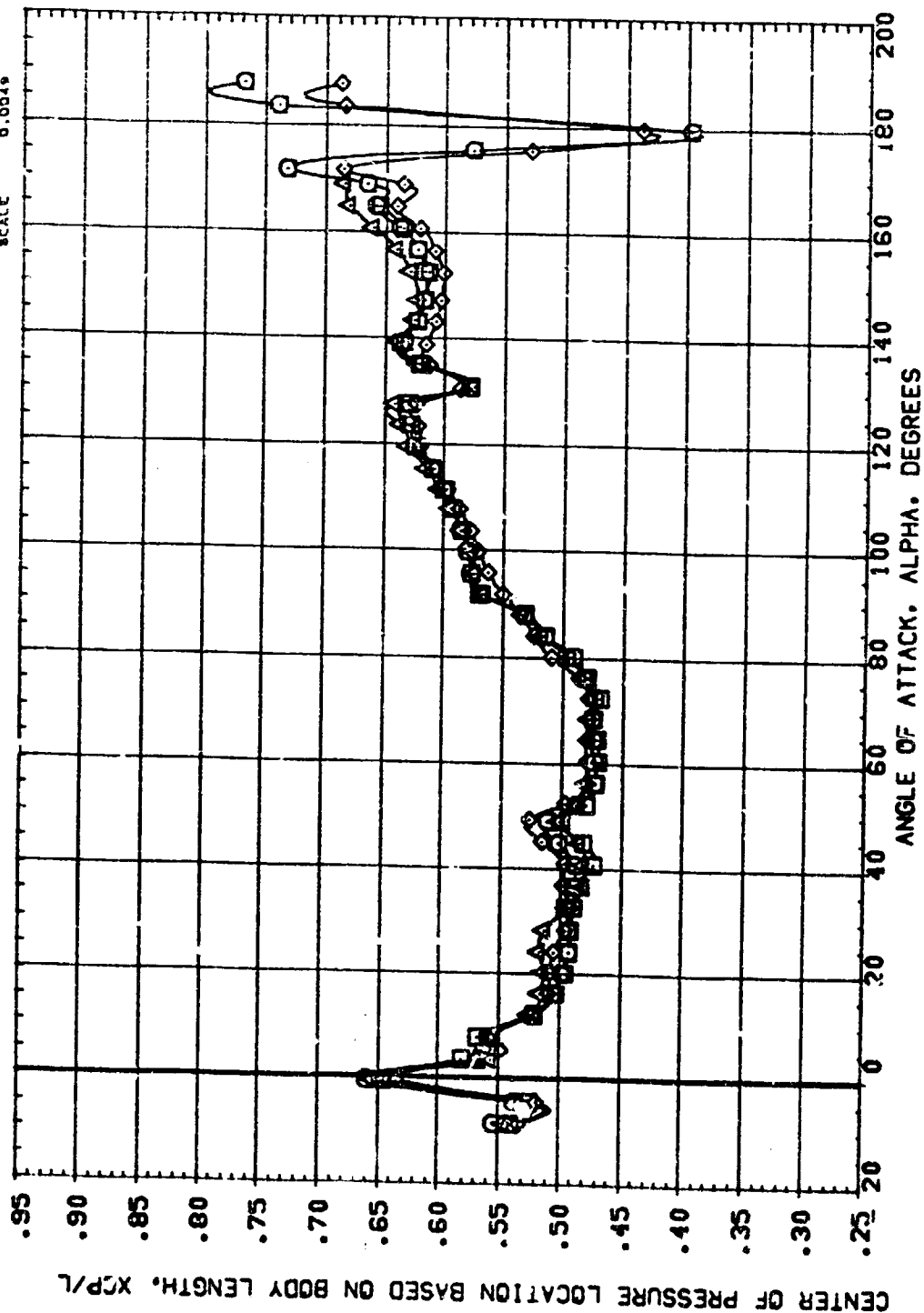
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PLASTK	APTSTK	REFERENCE INFORMATION
(279102)	MSPC 334 (3A1P) PRR/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRP 0.5030 58.1M.
(279103)	MSPC 334 (3A1P) PRR/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.6000 INCH
(279104)	MSPC 334 (3A1P) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.8000 INCH
(279105)	MSPC 334 (3A1P) PRR/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XRRP 6.0810 INCH
(279106)	MSPC 334 (3A1P) PRR/SRB (NO GRIT)	0.000	22.500	1.100	1.100	YRRP 0.0000
(279107)	MSPC 334 (3A1P) PRR/SRB (NO GRIT)	0.000	67.500	1.100	1.100	ZRRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(E)MACH = 3.48

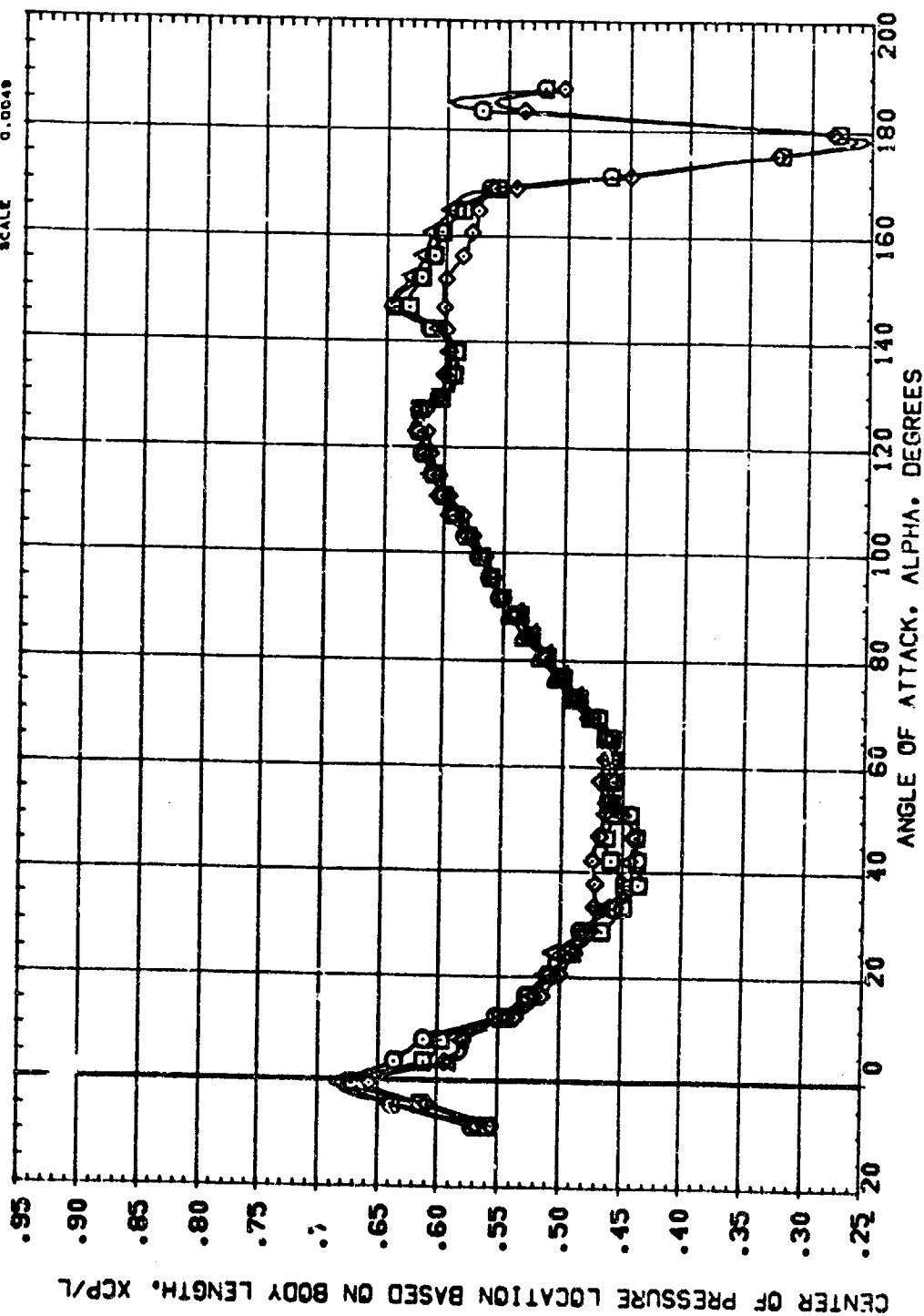
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PA0STK	APTSTK	REFERENCE INFORMATION
(279102)	NSPC 354 (SALP) PRR/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SRP 0.5030 36.1N
(279103)	NSPC 354 (SALP) PRR/SRS (NO GRIT)	0.000	43.000	1.100	1.100	LRP 0.8030 1NCH
(279104)	NSPC 354 (SALP) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	SRP 0.8030 1NCH
(279110)	NSPC 354 (SALP) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	YMRP 6.0910 1NCH
(279P2C)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000
(279P4C)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PLASTK	AFTSTK	REFERENCE INFORMATION
(279101)	WSPC 334 (SAIP) PRB/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 86.1N
(279102)	WSPC 334 (SAIP) PRB/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 INCH
(279103)	WSPC 334 (SAIP) PRB/SRB (NO GRIT)	0.000	90.000	1.100	1.100	QREP 0.8000 INCH
(279104)	WSPC 334 (SAIP) PRB/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 8.0810 INCH
(279105)	WSPC 334 (SAIP) PRB/SRB (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000
(279106)	WSPC 334 (SAIP) PRB/SRB (NO GRIT)	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0048

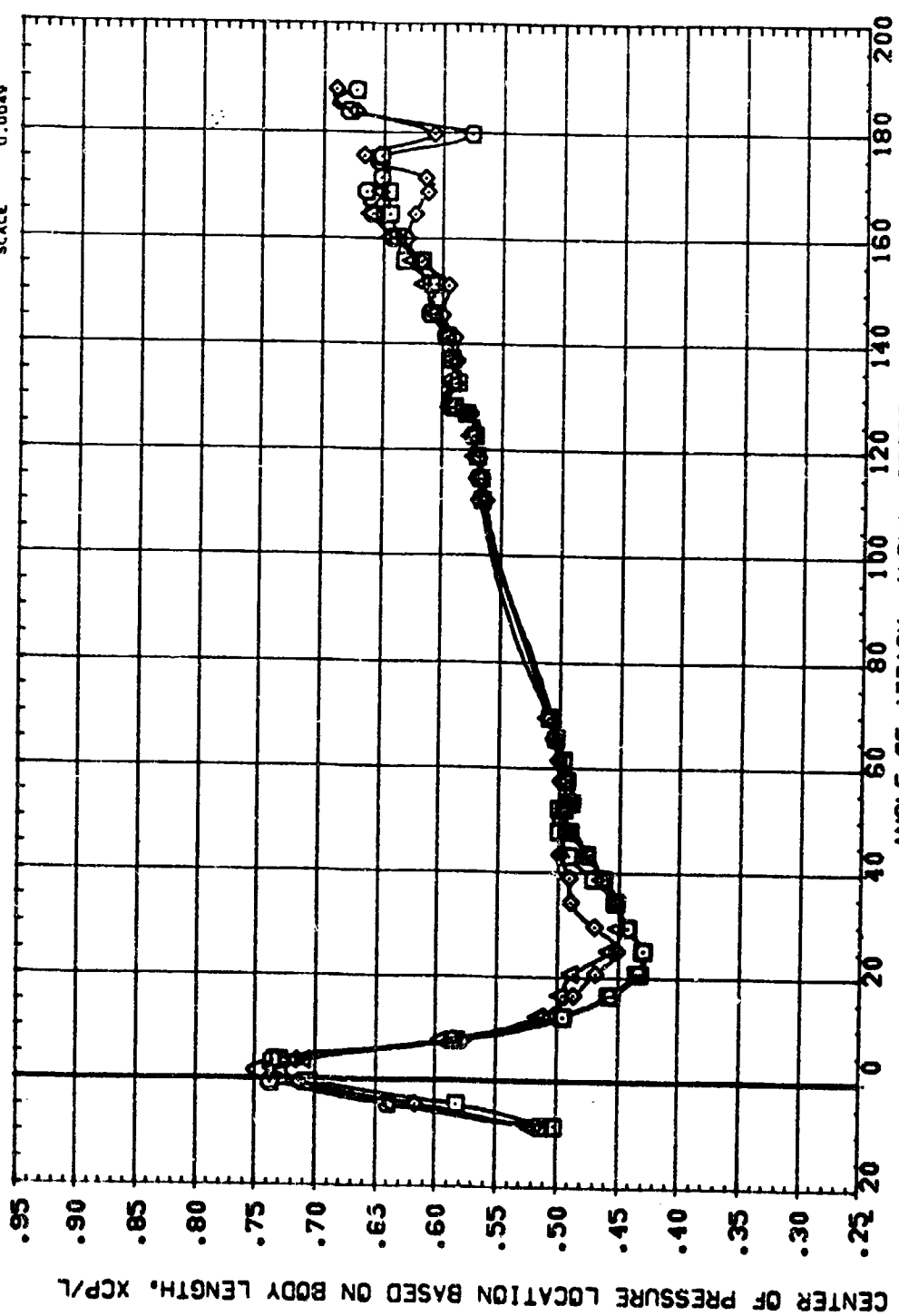


EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B) MACH = .90

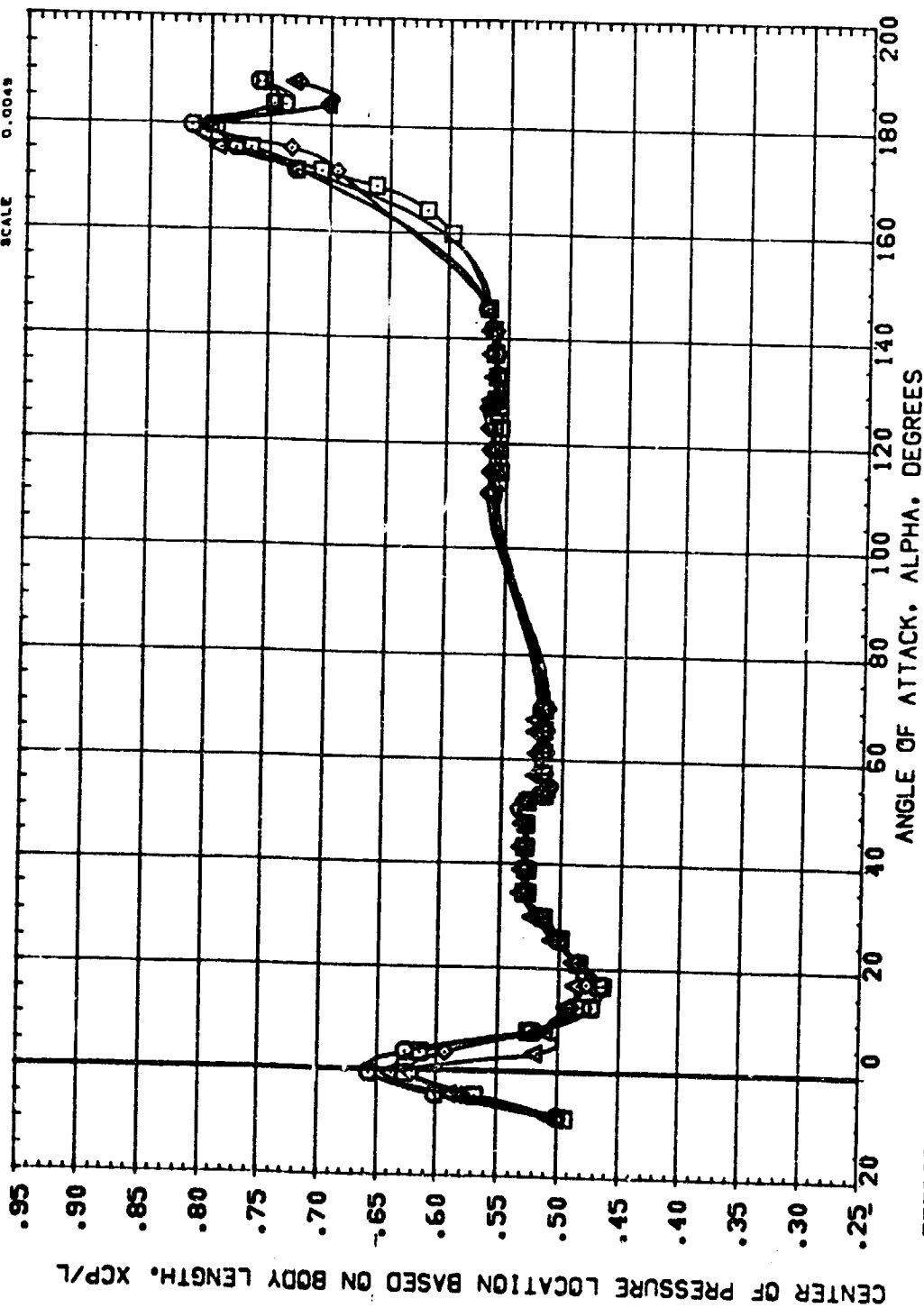
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (279102) NSPC 384 (SALP) PER/SRS (NO GRIT)
 (279103) NSPC 384 (SALP) PER/SRS (NO GRIT)
 (279104) NSPC 384 (SALP) PER/SRS (NO GRIT)
 (279105) NSPC 384 (SALP) PER/SRS (NO GRIT)
 (279106) NSPC 384 (SALP) PER/SRS (NO GRIT)
 (279107) DATA NOT AVAILABLE
 (279108) DATA NOT AVAILABLE

BETA PHI P408TH APT8TH REFERENCE INFORMATION
 0.000 0.000 0.000 0.000 SREP 0.503C 36.1M.
 0.000 45.000 1.100 1.100 LREP 0.8000 INCH
 0.000 90.000 1.100 1.100 BREP 0.8000 INCH
 0.000 135.000 1.100 1.100 XMRP 6.0810 INCH
 0.000 22.500 1.100 1.100 YMRP 0.0000
 0.000 67.500 1.100 1.100 ZMRP 0.0000
 SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
 (C)MACH = 1.20

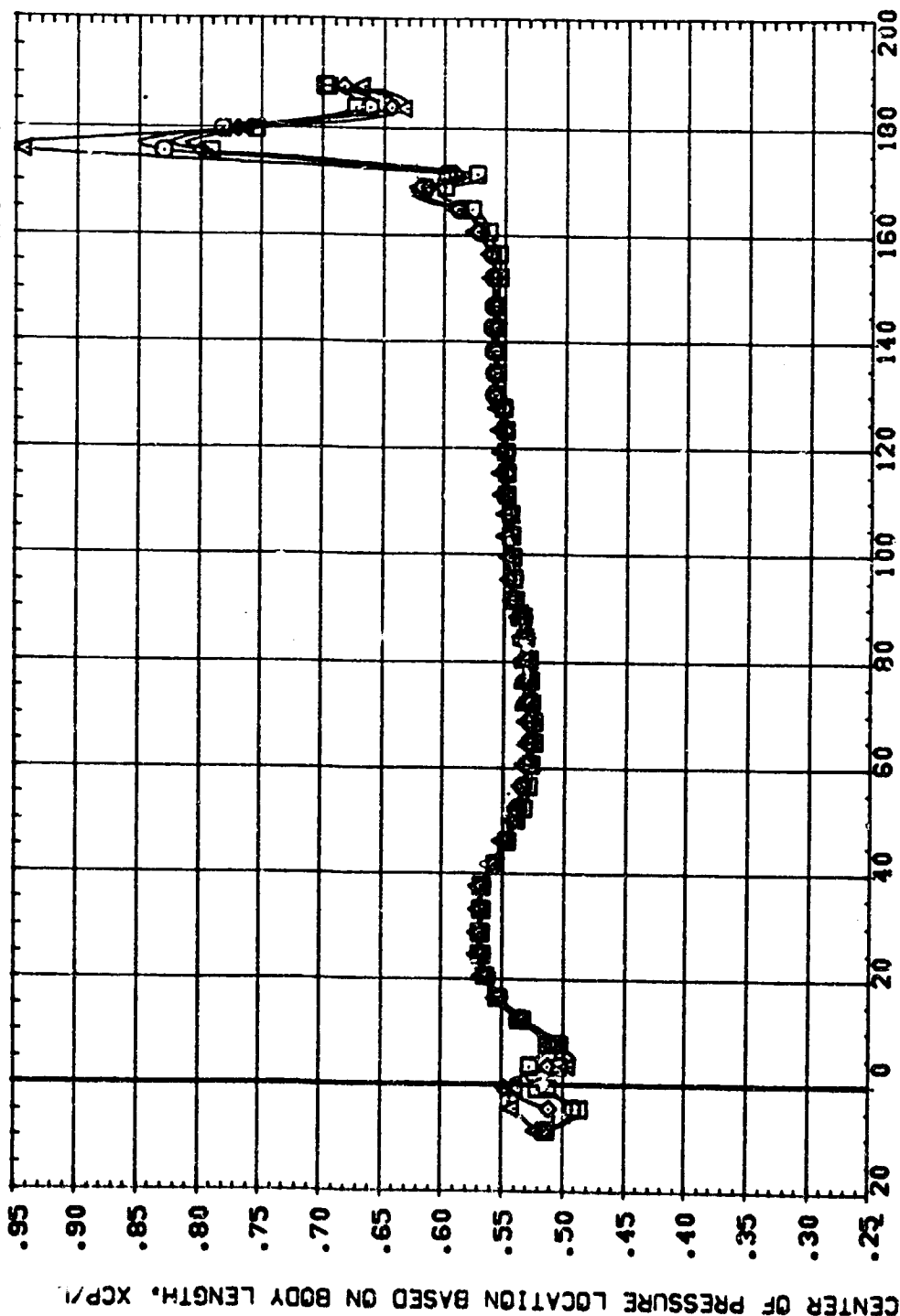
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FWOSTK	AFTSTK	REFERENCE INFORMATION
(279102)	WSPC 554 (3A1P) WPR/SBS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 SQ. IN.
(279108)	WSPC 554 (3A1P) WPR/SBS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.6000 INCH
(279109)	WSPC 554 (3A1P) WPR/SBS (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.6000 INCH
(279110)	WSPC 554 (3A1P) WPR/SBS (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 0.0810 INCH
(279122)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000
(279142)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0045



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 1.96

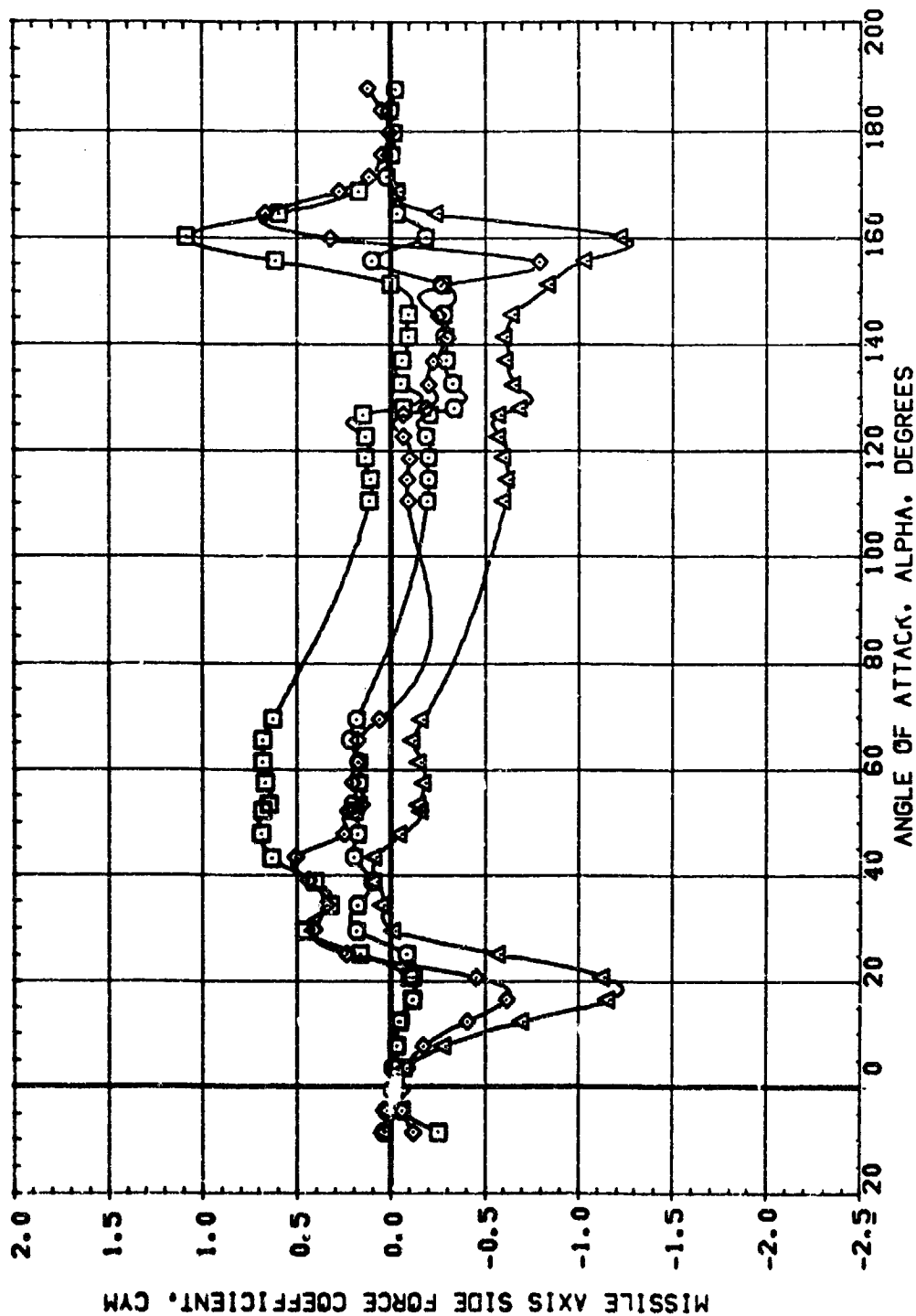
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PA03TK	APT8TK	REFERENCE INFORMATION
(279102)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 INCH
(279108)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.8000 INCH
(279109)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	SREF 0.8000 INCH
(279110)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 6.0810 INCH
(279122)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000
(279142)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 3.48

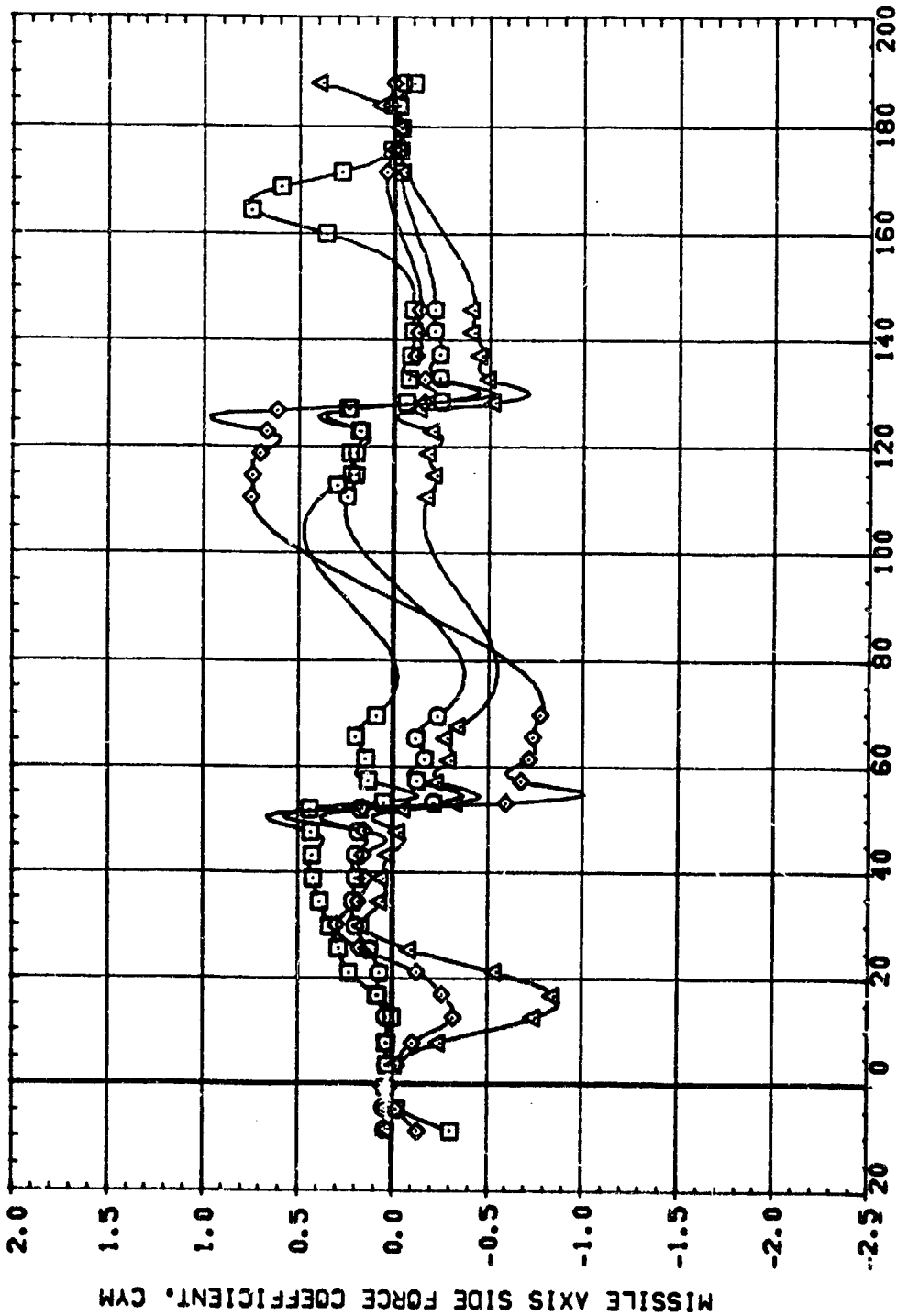
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	POSTK	APTSTK	REFERENCE INFORMATION
(279102)	MSPC 534 (8A1P) PRN/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRFP 0.8030 INCH
(279108)	MSPC 534 (8A1P) PRN/SRB (NO GRIT)	0.000	48.000	1.100	1.100	LRFP 0.8000 INCH
(279109)	MSPC 534 (8A1P) PRN/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SRFP 0.8000 INCH
(279110)	MSPC 534 (8A1P) PRN/SRB (NO GRIT)	0.000	138.000	1.100	1.100	XMRP 0.0810 INCH
(279120)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YMRP 0.0000
(279122)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0000
(279140)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 1.20

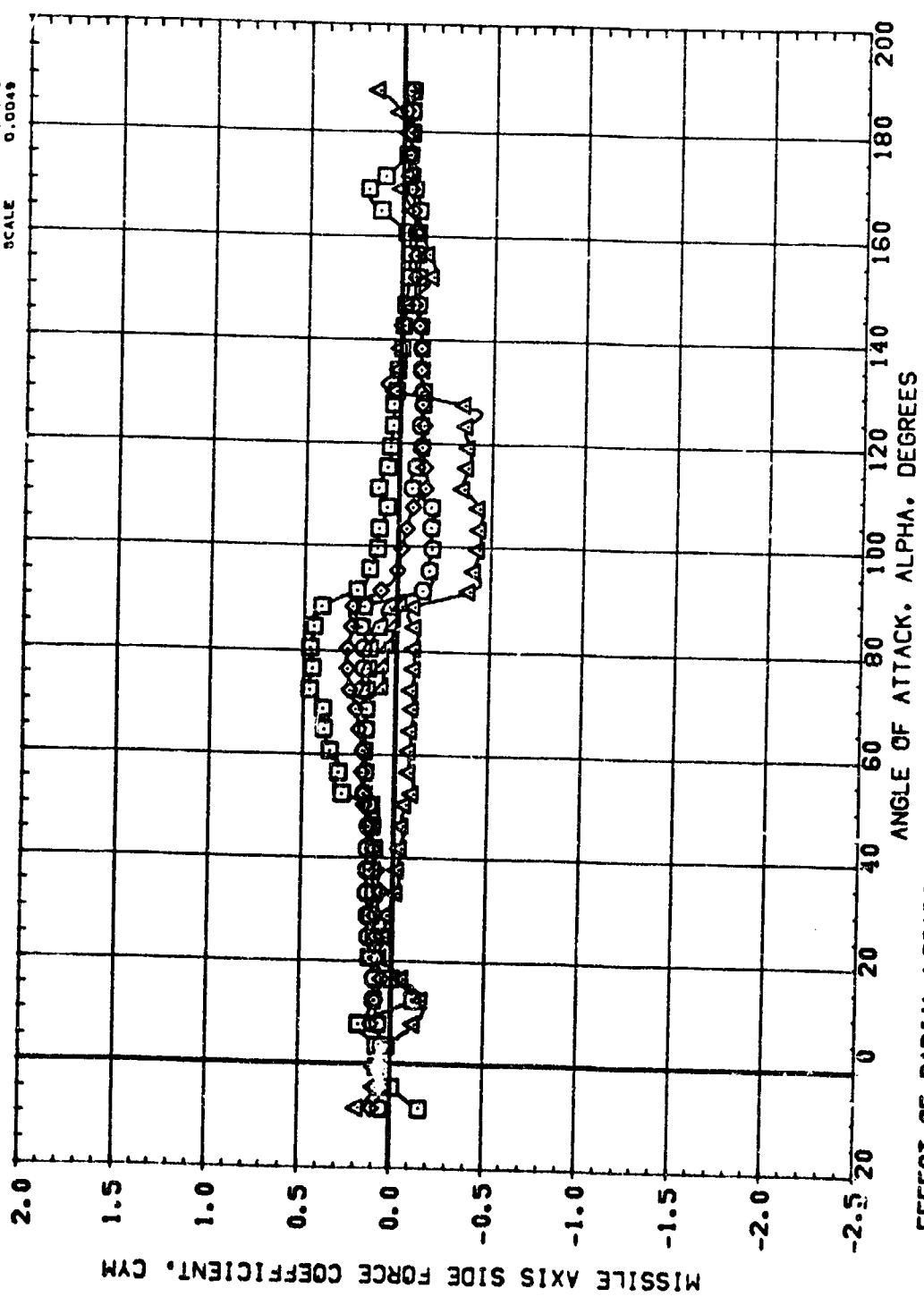
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PM1	PMOSTR	APVSTR	REFERENCE INFORMATION
(279102)	□	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.0030 88.14
(279103)	○	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.0000 11.00
(279104)	△	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	90.000	1.100	1.100	SREF 0.0000 11.00
(279105)	◇	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	135.000	1.100	1.100	XREF 0.0010 11.00
(279106)	◇	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	22.500	1.100	1.100	YREF 0.0000 11.00
(279107)	◇	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	67.500	1.100	1.100	ZREF 0.0000 11.00
(279108)	◇	WSPC 314 (SA1P) PER/SRS (NO GRIT)	0.000	67.500	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(D)MACH = 1.96

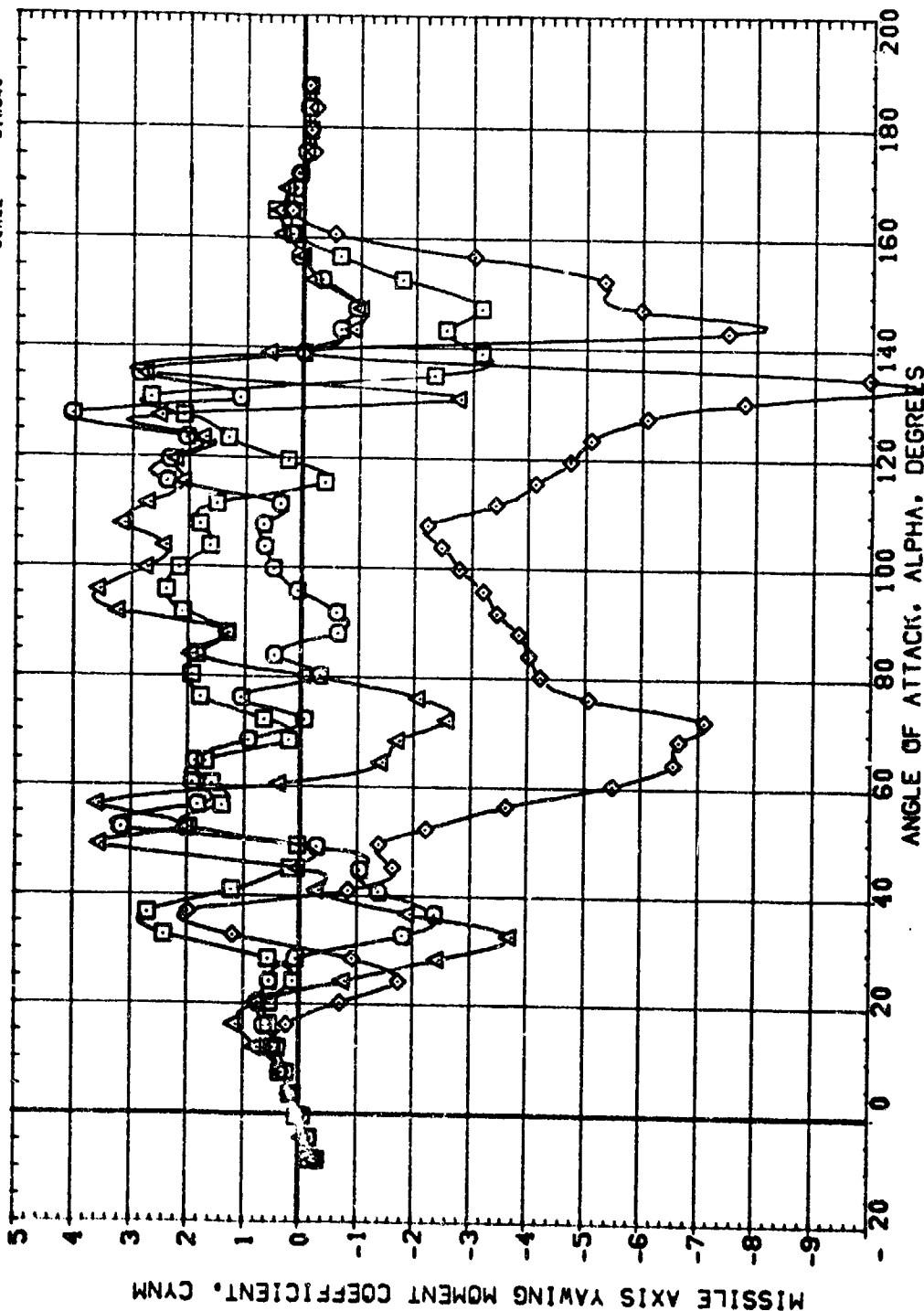
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FWSTK	AFSTK	REFERENCE INFORMATION
(279102)	WSPC 334 (3A1P) PRN/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 INCH
(279108)	WSPC 334 (3A1P) PRN/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.8000 INCH
(279109)	WSPC 334 (3A1P) PRN/SRS (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.8000 INCH
(279110)	WSPC 334 (3A1P) PRN/SRS (NO GRIT)	0.000	135.000	1.100	1.100	XNRP 6.0810 INCH
(279122)	WSPC 334 (3A1P) PRN/SRS (NO GRIT)	0.000	22.500	1.100	1.100	YNRP 0.0000
(279142)	WSPC 334 (3A1P) PRN/SRS (NO GRIT)	0.000	67.500	1.100	1.100	ZNRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(E)MACH = 3.48

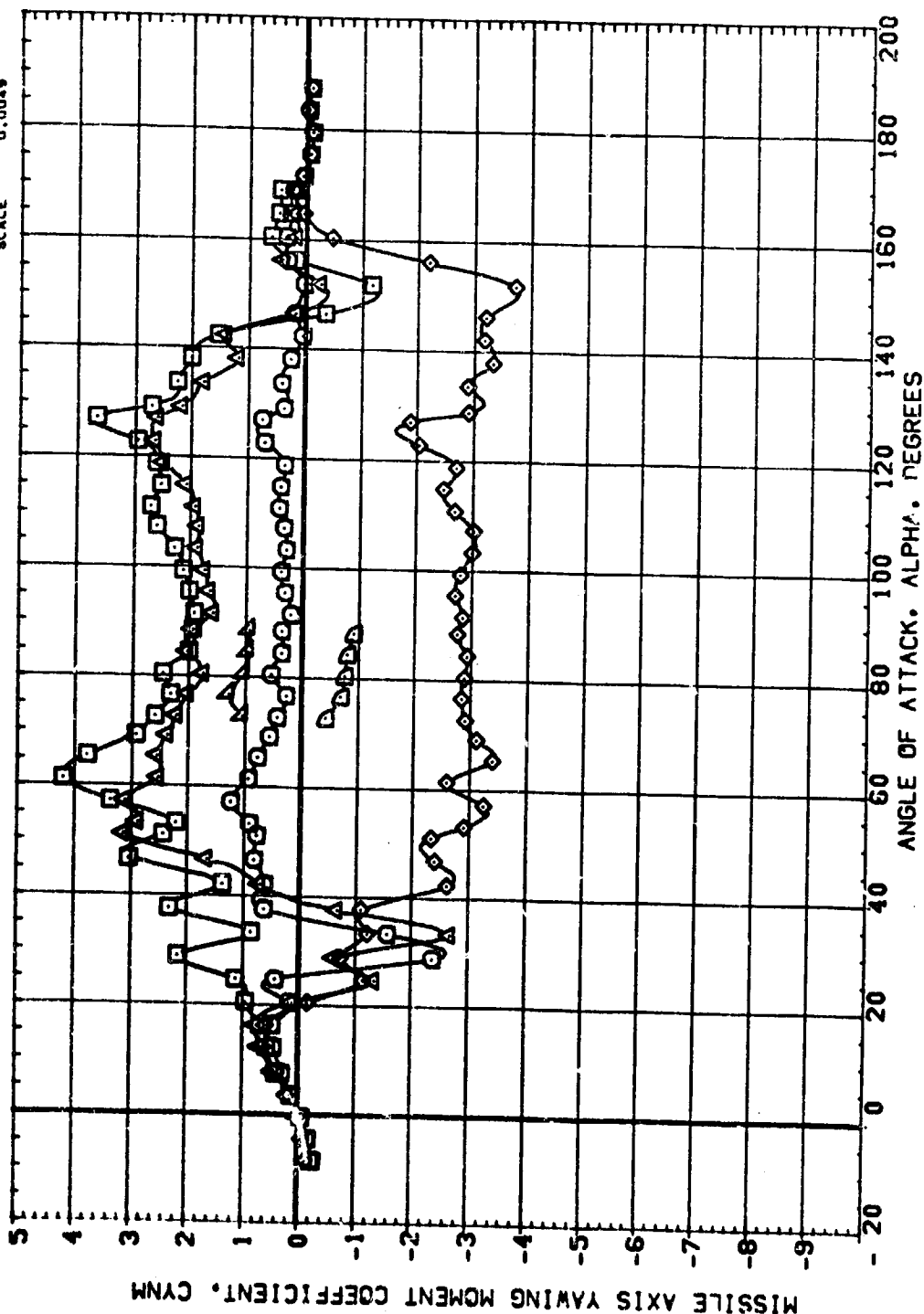
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SZTA	PHI	FWO3TK	APT3TK	REFERENCE INFORMATION
(279102)	MSPC 554 (SAIP) PRN/SRB (NO GRIT)	0.000	0.090	0.000	0.000	SREF 0.5030 80.1N.
(279103)	MSPC 554 (SAIP) PRN/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.8000 1NCH
(279104)	MSPC 554 (SAIP) PRN/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.8000 1NCH
(279105)	MSPC 554 (SAIP) PRN/SRB (NO GRIT)	0.000	135.000	1.100	1.100	YNRP 6.0810 1NCH
(279106)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	YNRP 0.0000
(279107)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZNRP 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A)MACH = .60

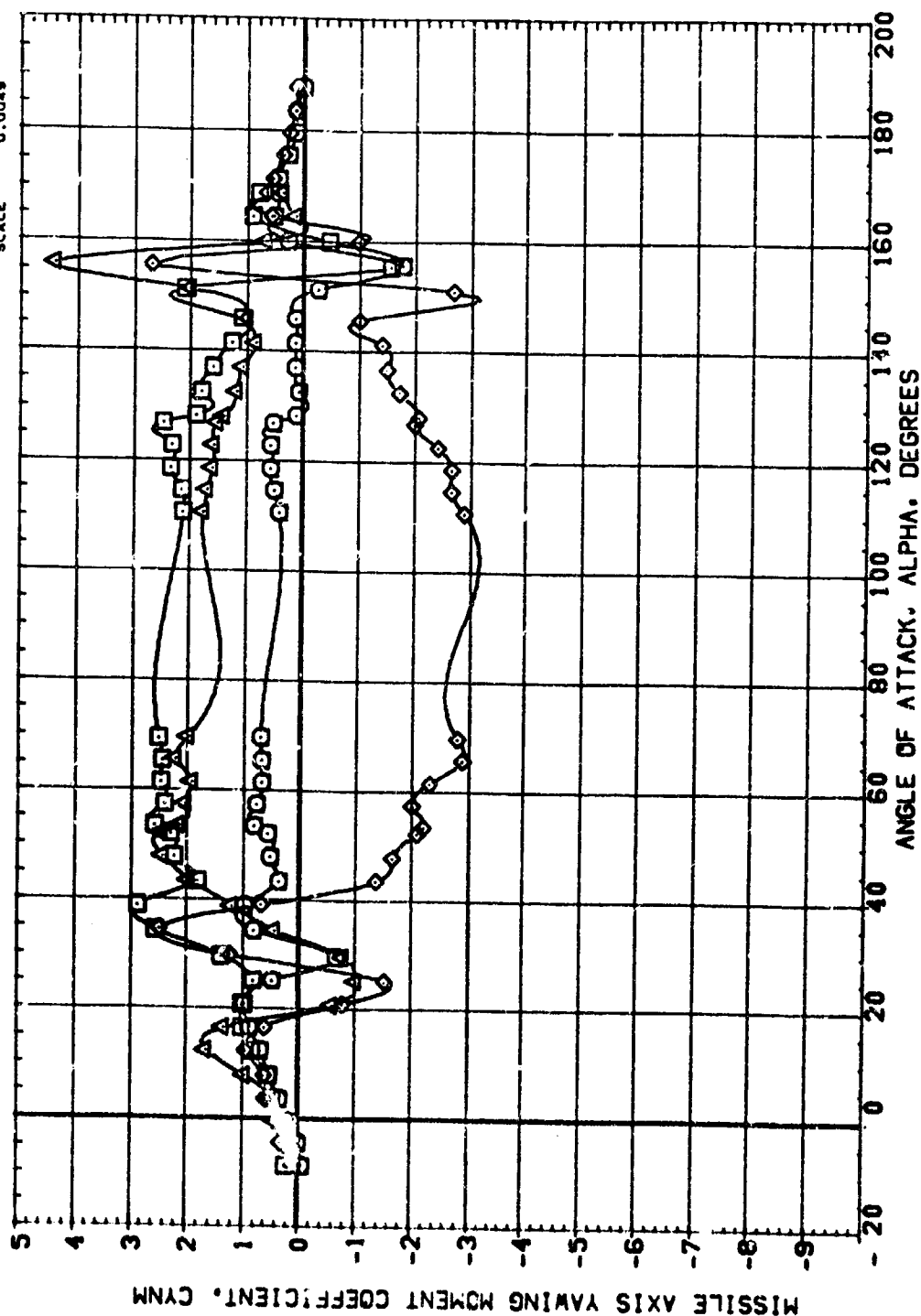
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTH	APTSTK	REFERENCE INFORMATION
(279102)	WSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 88.1M.
(279103)	WSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	45.000	0.000	1.100	LREF 0.8000 INCH
(279104)	WSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	90.000	1.100	1.100	GREF 0.8000 INCH
(279105)	WSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	135.000	1.100	1.100	KMRP 6.0810 INCH
(279106)	WSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000
(279107)	WSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	67.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B)MACH = .90

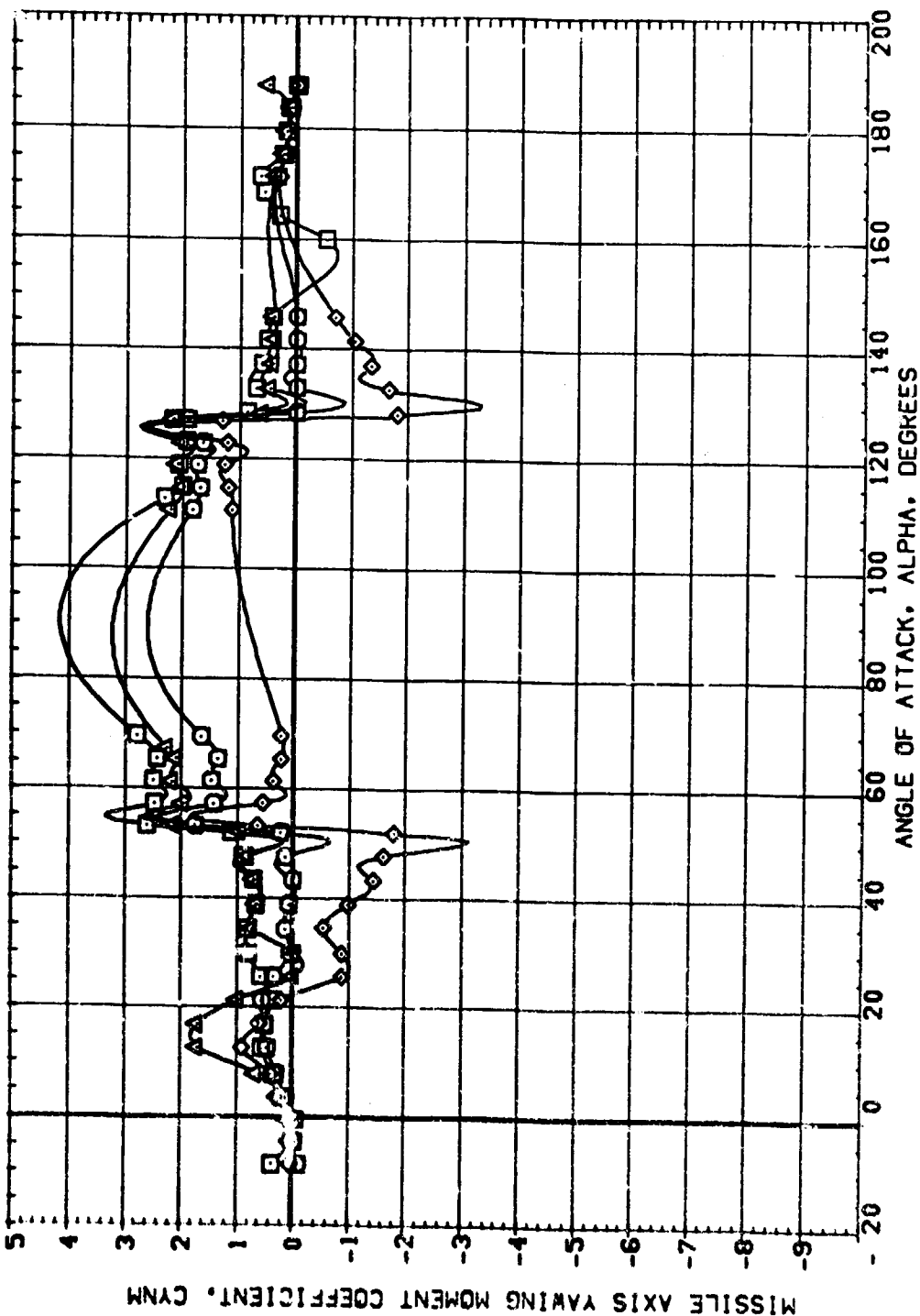
BETA		PHI	PLASTK	APPRK	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREP	0.5030	50.1M.
0.000	0.000	0.000	0.000	LRFP	0.8000	INCH
0.000	45.000	1.000	1.000	GRUP	0.8000	INCH
0.000	135.000	1.000	1.000	YMRP	0.8000	INCH
0.000	22.500	1.000	1.000	ZMRP	0.8000	INCH
0.000	67.500	1.000	1.000	SCALE	0.0049	



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 1.27

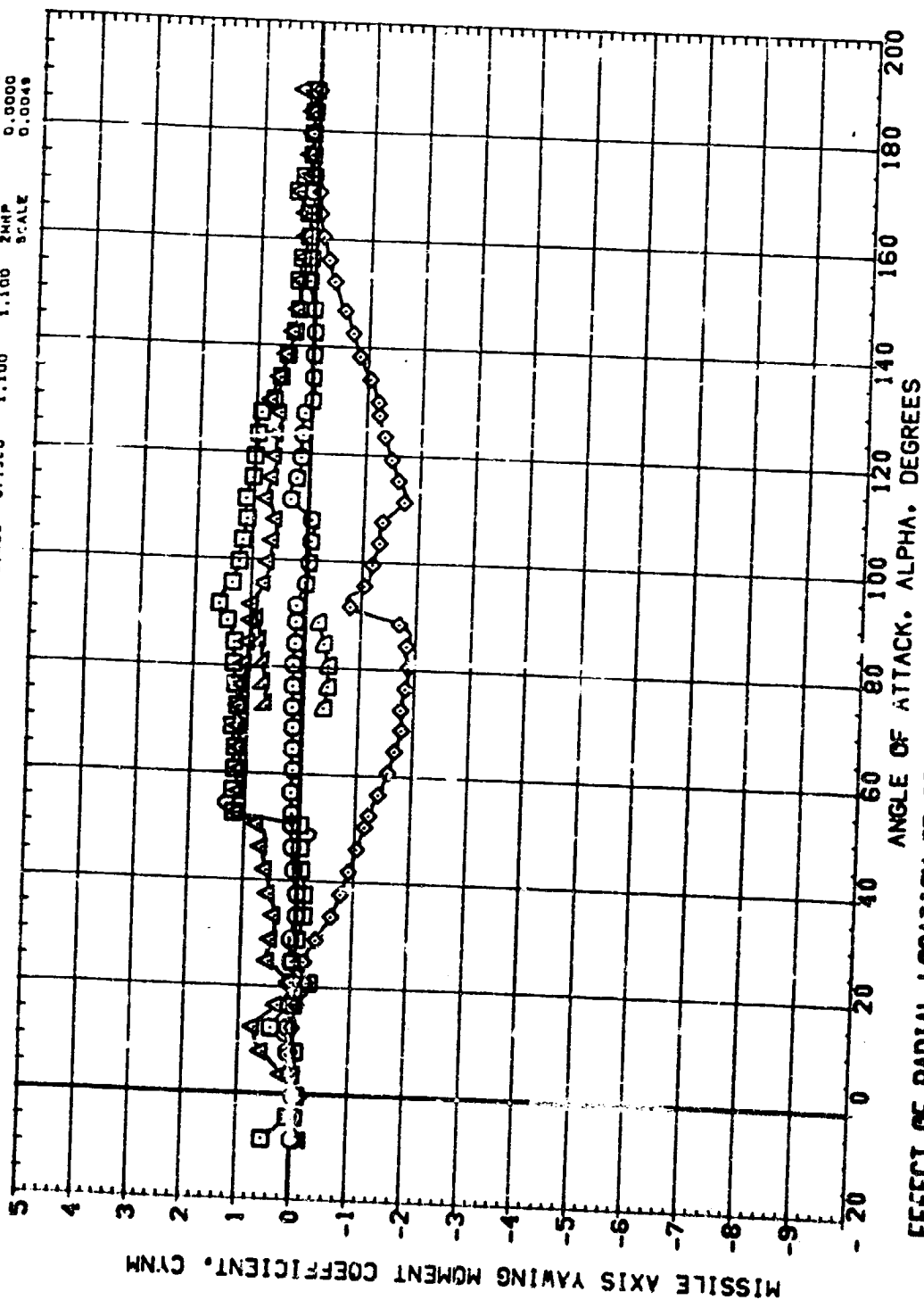
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PGOSTK	APSTK	REFERENCE INFORMATION
(279102)	WSPC 334 (SASP) PRR/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRP 0.5030 INCH
(279104)	WSPC 334 (SASP) PRR/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LRP 0.5000 INCH
(279109)	WSPC 334 (SASP) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SRP 0.5000 INCH
(279110)	WSPC 334 (SASP) PRR/SRB (NO GRIT)	0.000	135.000	1.100	1.100	SRP 0.5010 INCH
(279120)	DATA NOT AVAILABLE	0.000	225.000	1.100	1.100	SRP 0.5000 INCH
(279140)	DATA NOT AVAILABLE	0.000	270.000	1.100	1.100	SRP 0.5049 INCH



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

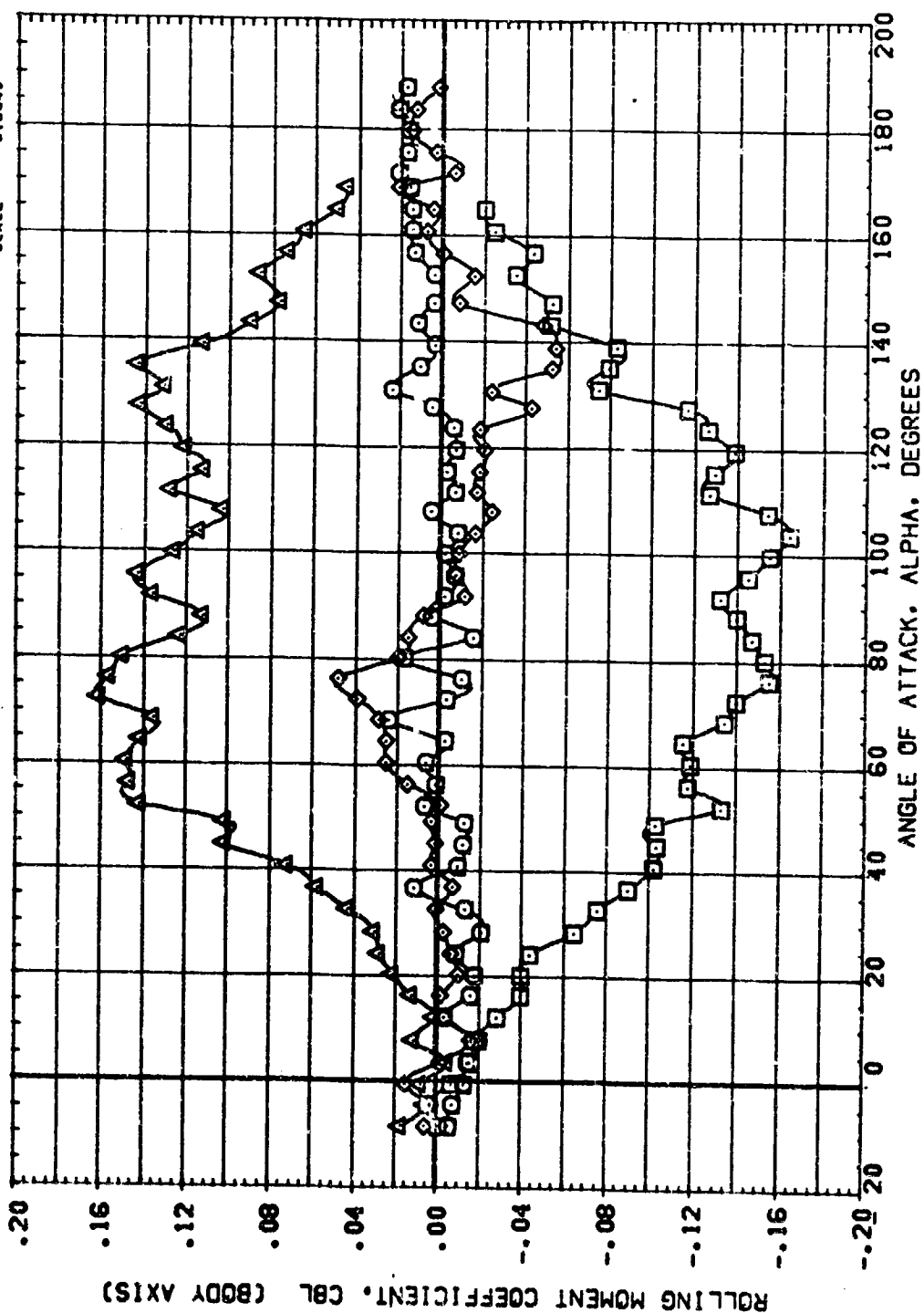
(C)MACH = 1.93

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMATH	APATH	REFERENCE INFORMATION
(279102)	WSPC 334 (3A1P) PER/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SPZF 0.5030 INCH
(279103)	WSPC 334 (3A1P) PER/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LRFP 0.8000 INCH
(279104)	WSPC 334 (3A1P) PER/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BRFP 0.8000 INCH
(279105)	WSPC 334 (3A1P) PER/SRB (NO GRIT)	0.000	135.000	1.100	1.100	VRFP 0.8010 INCH
(279P2E)	WSPC 334 (3A1P) PER/SRB (NO GRIT)	0.000	22.500	1.100	1.100	VRFP 0.0000
(279P4E)	WSPC 334 (3A1P) PER/SRB (NO GRIT)	0.000	67.500	1.100	1.100	ZHFP 0.0048



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(E)MACH = 3.48

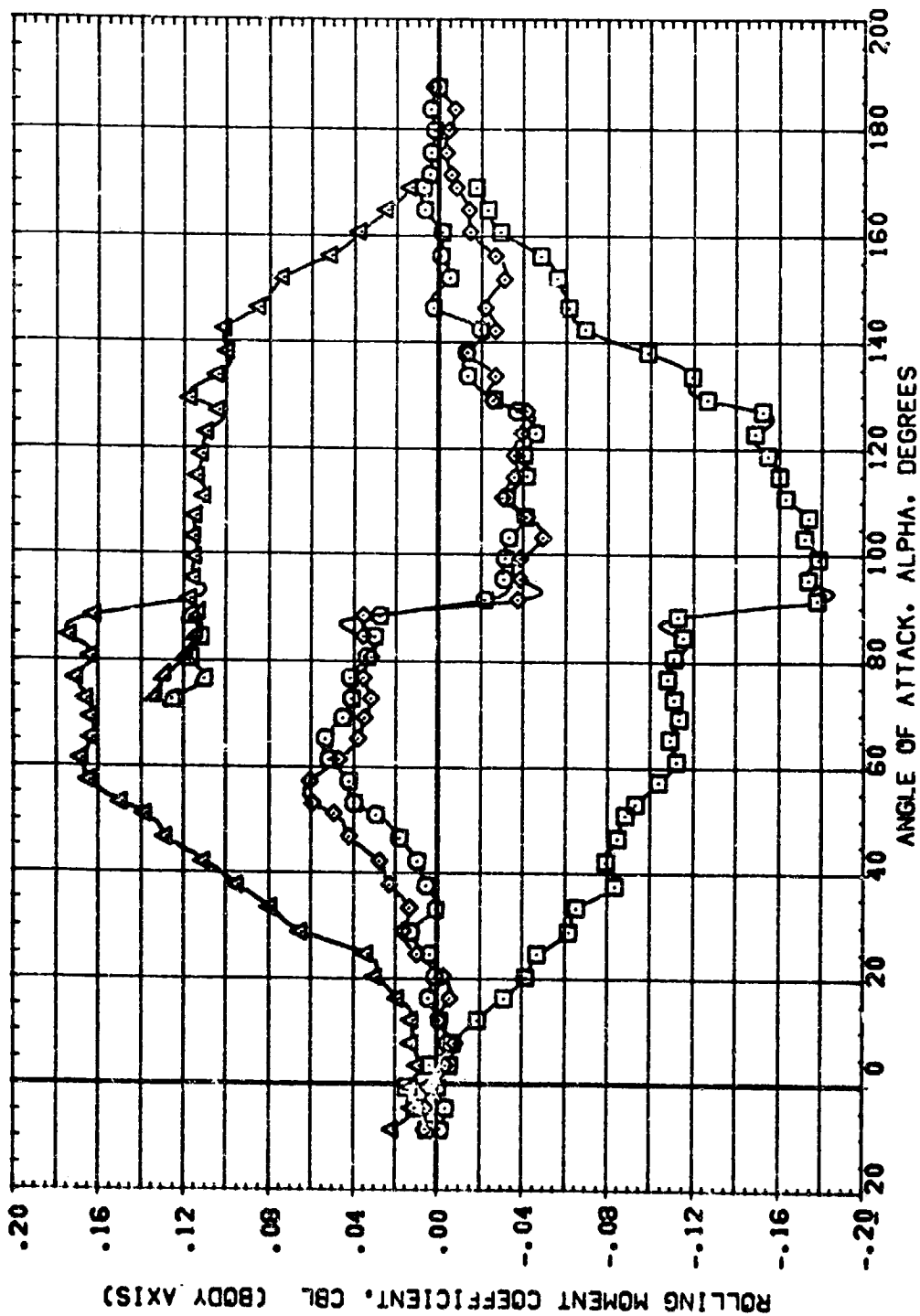
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PA08TK	APT8TK	REFERENCE INFORMATION
(279102)	NSPC 334 (8A1P) SRP/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRP 0.9030 86.1N.
(279103)	NSPC 334 (8A1P) SRP/SRB (NO GRIT)	0.000	49.000	1.100	1.100	LRP 0.8000 INCH
(279104)	NSPC 334 (8A1P) SRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SRP 0.8000 INCH
(279105)	NSPC 334 (8A1P) SRP/SRB (NO GRIT)	0.000	138.000	1.100	1.100	YMRP 6.0810 INCH
(279106)	NSPC 334 (8A1P) SRP/SRB (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000
(279107)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0000
(279108)	DATA NOT AVAILABLE					SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STROKES ON AERODYNAMIC CHARACTERISTICS

(M)MACH = .60

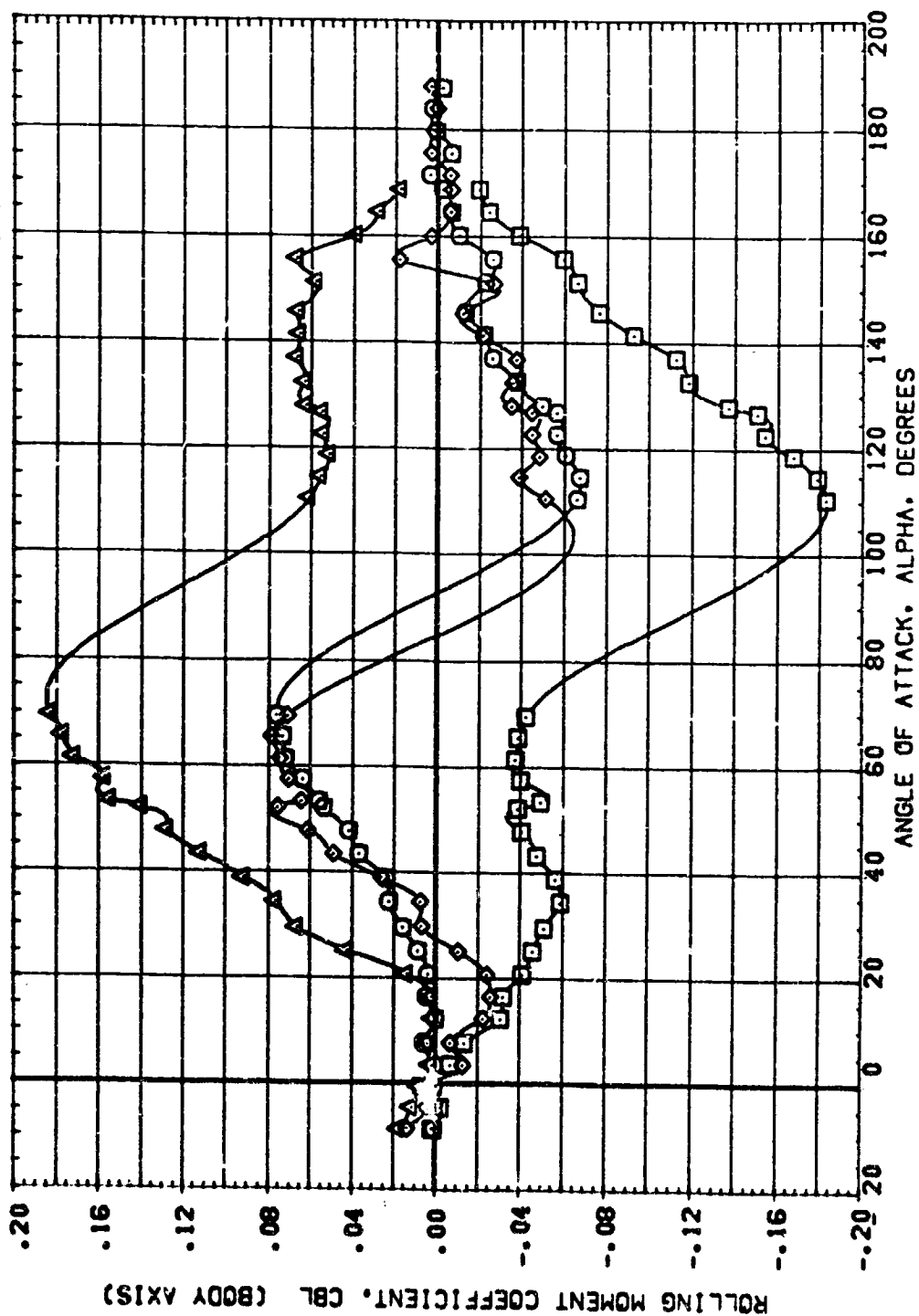
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FWOOTH	AFTSTK	REFERENCE INFORMATION
(279102)	WSPC 334 (BA1P) PRN/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 86.1M.
(279103)	WSPC 334 (BA1P) PRN/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 1NCH
(279104)	WSPC 334 (BA1P) PRN/SRB (NO GRIT)	0.000	90.000	1.100	1.100	BREP 0.6000 1NCH
(279105)	WSPC 334 (BA1P) PRN/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 0.0810 1NCH
(279106)	WSPC 334 (BA1P) PRN/SRB (NO GRIT)	0.000	22.500	1.100	1.100	YMRP 0.0000 0.0000
(279107)	WSPC 334 (BA1P) PRN/SRB (NO GRIT)	0.000	67.500	1.100	1.100	ZMRP 0.0000 0.0049
						SCALE



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B)MACH = .90

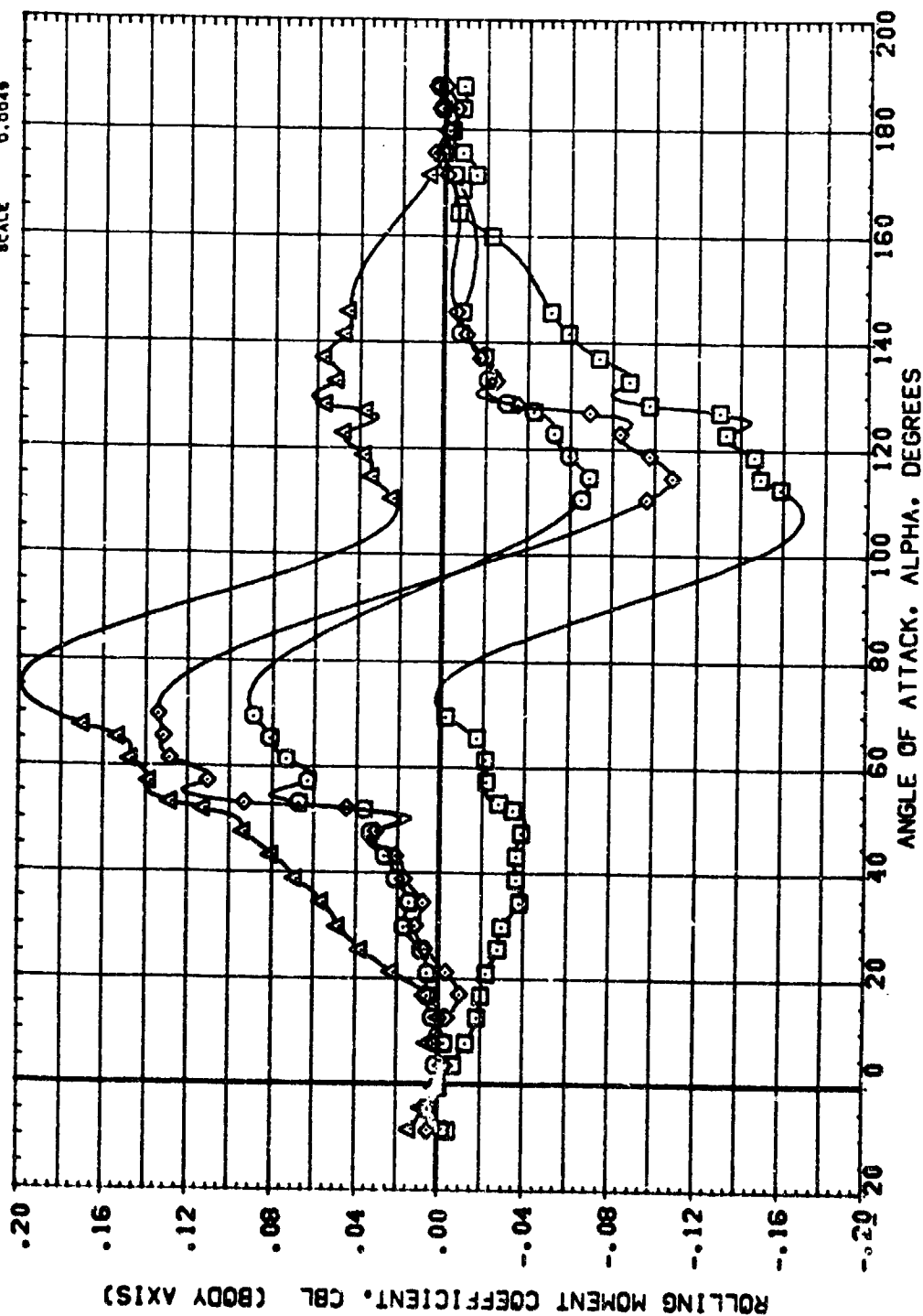
07402



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

$$(C)_{MACH} = 1.20$$

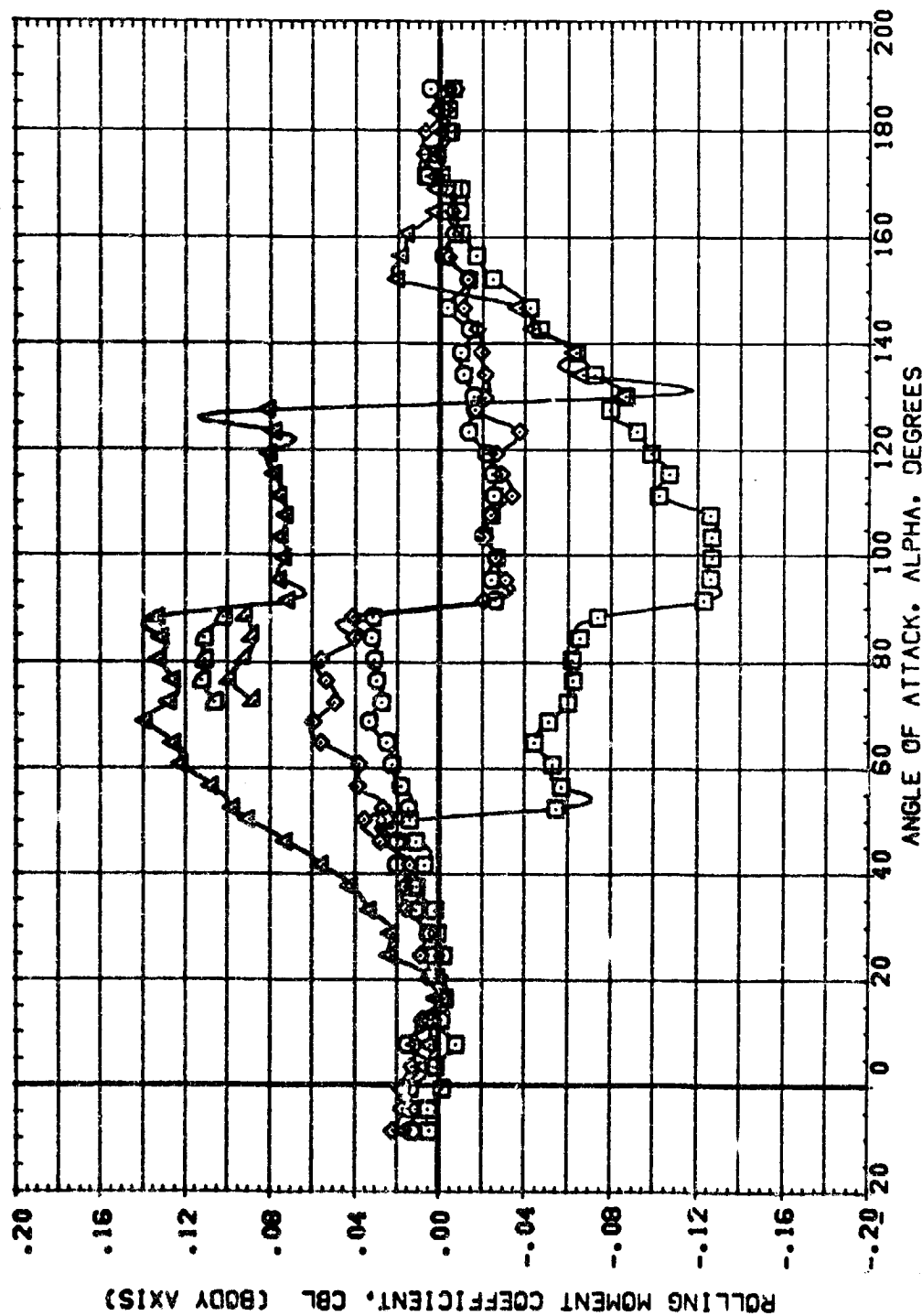
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION
(279102)	HSFC 554 (BA1P) PER/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 INCH
(279103)	HSFC 554 (BA1P) PER/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.5000 INCH
(279104)	HSFC 554 (BA1P) PER/SRS (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.5000 INCH
(279105)	HSFC 554 (BA1P) PER/SRS (NO GRIT)	0.000	135.000	1.100	1.100	YMRP 0.0010 INCH
(279106)	DATA NOT AVAILABLE	0.000	22.500	1.100	1.100	ZMRP 0.0000
(279107)	DATA NOT AVAILABLE	0.000	67.500	1.100	1.100	ZMRP 0.0049
(279108)	DATA NOT AVAILABLE	0.000	0.000	0.000	0.000	SCALE



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(D)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	POSIX	APTSX	REFERENCE INFORMATION
(279102)	WSPC 554 (SALP) PRR/SRS (NO GRIT)	0.000	0.000	0.000	0.000	0.5030 50.1M
(279103)	WSPC 554 (SALP) PRR/SRS (NO GRIT)	0.000	48.500	1.100	1.100	0.8000 1MCM
(279104)	WSPC 554 (SALP) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	0.8000 1MCM
(279105)	WSPC 554 (SALP) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	0.8010 1MCM
(279106)	WSPC 554 (SALP) PRR/SRS (NO GRIT)	0.000	22.500	1.100	1.100	0.0000 0.0000
(279107)	WSPC 554 (SALP) PRR/SRS (NO GRIT)	0.000	67.500	1.100	1.100	0.0000 0.0000

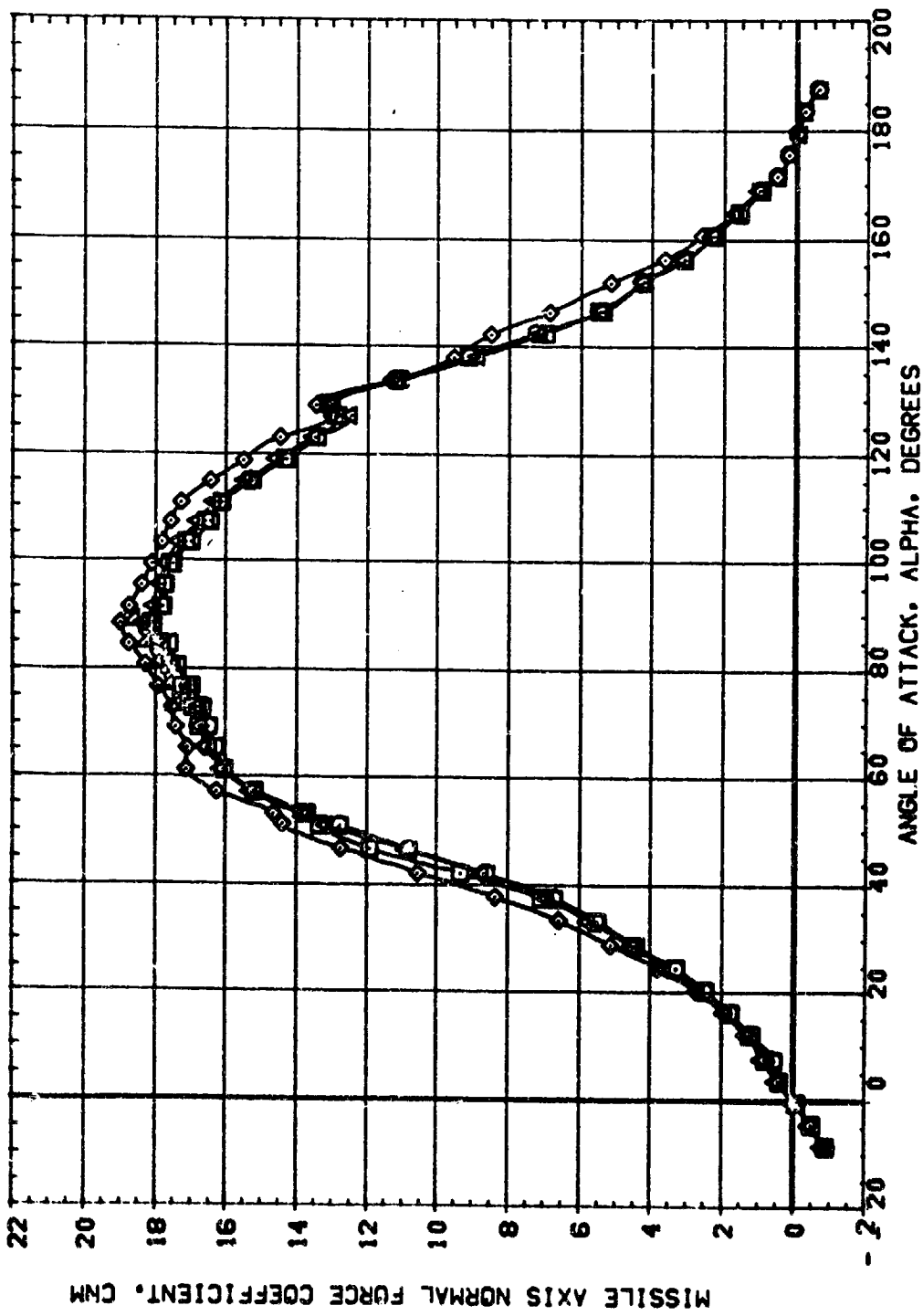


EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(C)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(279102)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	BETA	PHI	PMOSTR	APTSTR	REFERENCE INFORMATION
(279103)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 36.1M
(279104)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.5000 1MCH
(279105)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.8000 1MCH
(279106)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	XHRP 0.0810 1MCH
(279107)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	180.000	1.100	1.100	YHRP 0.0000 1MCH
(279108)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	225.000	1.100	1.100	ZHRP 0.0000 1MCH
(279109)	MSPC 334 (3A1P)	PRR/SRS (NO GRIT)	0.000	270.000	1.100	1.100	SCALE 0.0049



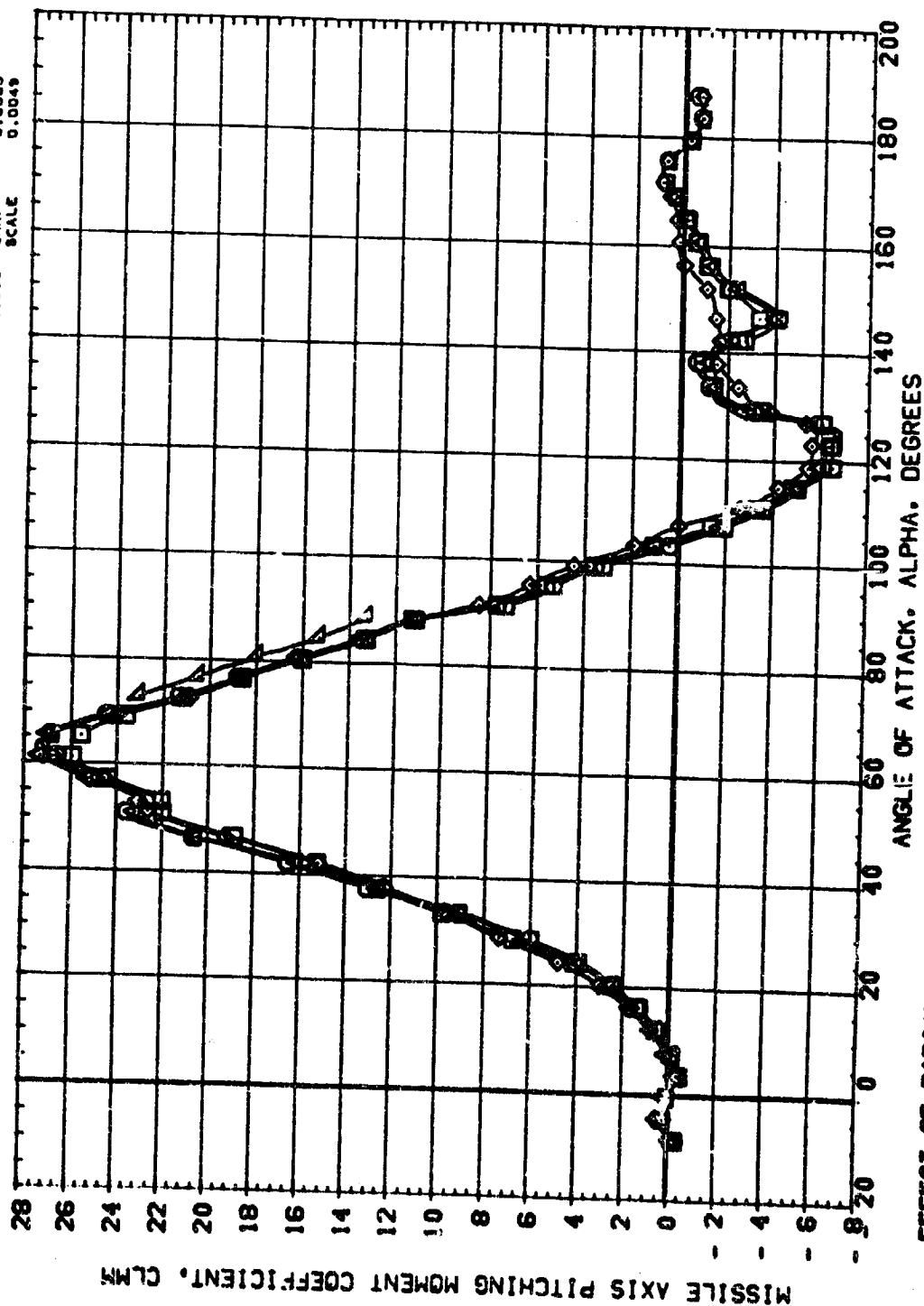
EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B) MACH = .90

REFERENCE INFORMATION	
BREF	0.5020 38.1M
LREF	0.6000 INCH
BREF	0.6000 INCH
KMRP	6.0810 INCH
YMRP	0.0000
ZMRP	0.0020
SCALE	0.0049

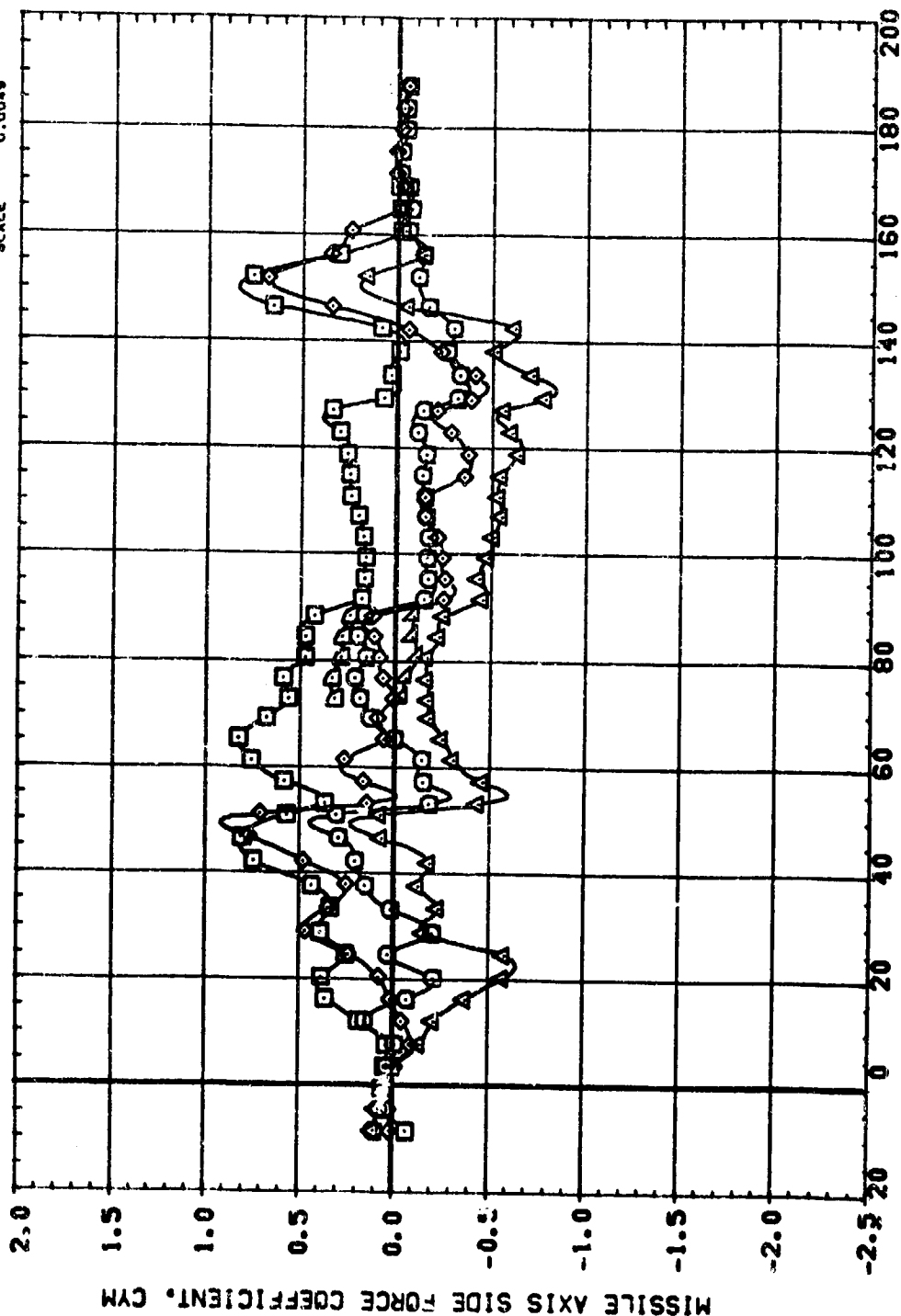

$$(B)MACH = .90$$

PHI		P/DIST		AFT/TK		REFERENCE INFORMATION	
BETA	0.000	0.000	0.000	0.000	SREP	0.5030	56.1N.
	0.000	0.000	1.100	1.100	LREP	0.8000	1MCM
	0.000	90.000	1.100	1.100	SREP	0.8000	1MCM
	0.000	128.000	1.100	1.100	XMRP	6.0010	1MCM
	0.000	112.500	1.100	1.100	YMRP	0.0000	
	0.000	137.500	1.100	1.100	ZMRP	0.0000	
					SCALE	0.0049	



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

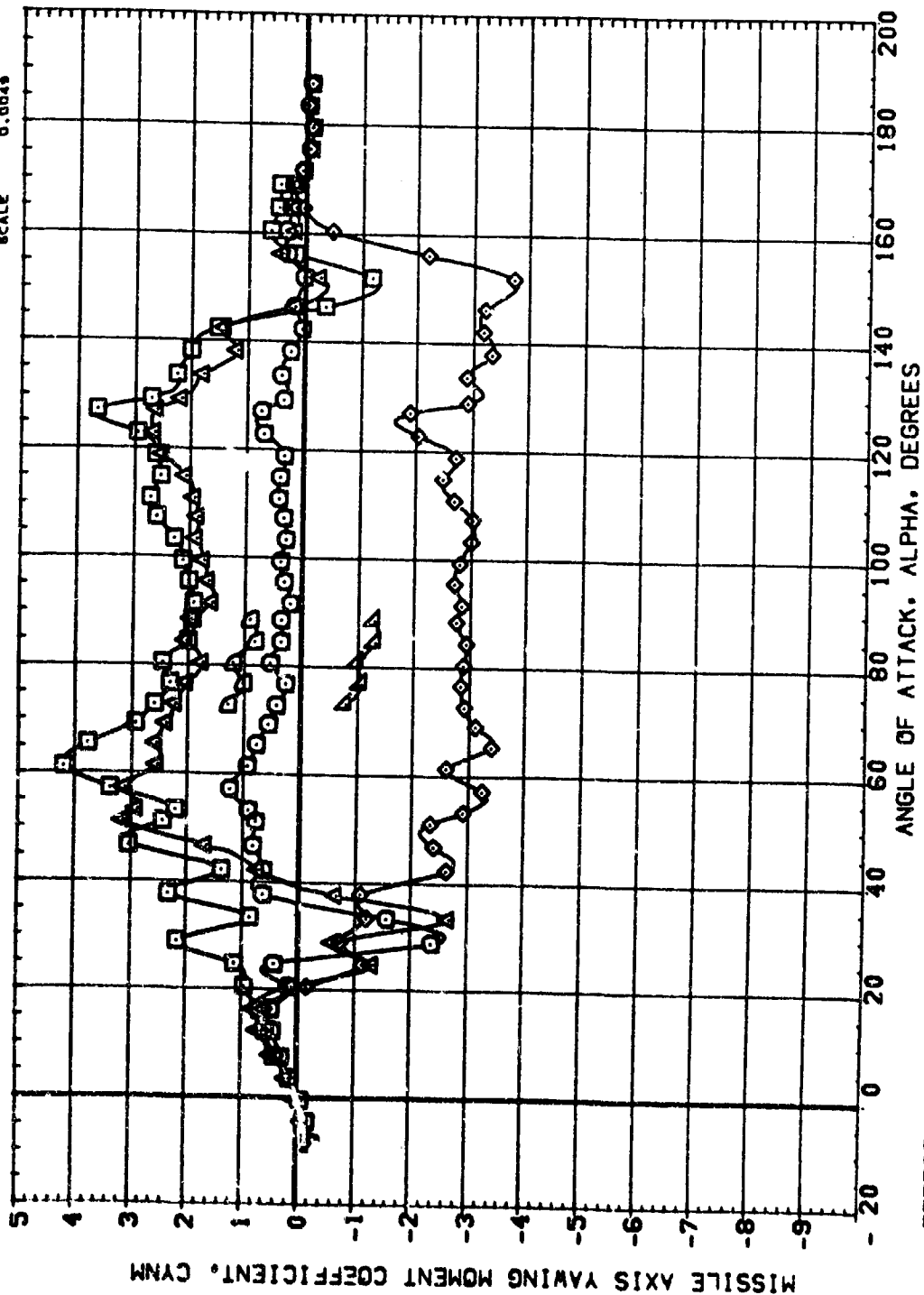
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION
(279102)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	0.000	0.000	0.000	56.1M.
(279103)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	45.000	1.100	1.100	INCH
(279104)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	90.000	1.100	1.100	INCH
(279105)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	135.000	1.100	1.100	INCH
(279106)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	180.000	1.100	1.100	INCH
(279107)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	225.000	1.100	1.100	INCH
(279108)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	270.000	1.100	1.100	INCH
(279109)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	315.000	1.100	1.100	INCH
(279110)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	360.000	1.100	1.100	INCH
(279111)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	405.000	1.100	1.100	INCH
(279112)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	450.000	1.100	1.100	INCH
(279113)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	495.000	1.100	1.100	INCH
(279114)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	540.000	1.100	1.100	INCH
(279115)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	585.000	1.100	1.100	INCH
(279116)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	630.000	1.100	1.100	INCH
(279117)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	675.000	1.100	1.100	INCH
(279118)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	720.000	1.100	1.100	INCH
(279119)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	765.000	1.100	1.100	INCH
(279120)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	810.000	1.100	1.100	INCH
(279121)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	855.000	1.100	1.100	INCH
(279122)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	900.000	1.100	1.100	INCH
(279123)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	945.000	1.100	1.100	INCH
(279124)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	990.000	1.100	1.100	INCH
(279125)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1035.000	1.100	1.100	INCH
(279126)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1080.000	1.100	1.100	INCH
(279127)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1125.000	1.100	1.100	INCH
(279128)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1170.000	1.100	1.100	INCH
(279129)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1215.000	1.100	1.100	INCH
(279130)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1260.000	1.100	1.100	INCH
(279131)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1305.000	1.100	1.100	INCH
(279132)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1350.000	1.100	1.100	INCH
(279133)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1395.000	1.100	1.100	INCH
(279134)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1440.000	1.100	1.100	INCH
(279135)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1485.000	1.100	1.100	INCH
(279136)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1530.000	1.100	1.100	INCH
(279137)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1575.000	1.100	1.100	INCH
(279138)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1620.000	1.100	1.100	INCH
(279139)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1665.000	1.100	1.100	INCH
(279140)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1710.000	1.100	1.100	INCH
(279141)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1755.000	1.100	1.100	INCH
(279142)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1800.000	1.100	1.100	INCH
(279143)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1845.000	1.100	1.100	INCH
(279144)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1890.000	1.100	1.100	INCH
(279145)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1935.000	1.100	1.100	INCH
(279146)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	1980.000	1.100	1.100	INCH
(279147)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2025.000	1.100	1.100	INCH
(279148)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2070.000	1.100	1.100	INCH
(279149)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2115.000	1.100	1.100	INCH
(279150)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2160.000	1.100	1.100	INCH
(279151)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2205.000	1.100	1.100	INCH
(279152)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2250.000	1.100	1.100	INCH
(279153)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2295.000	1.100	1.100	INCH
(279154)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2340.000	1.100	1.100	INCH
(279155)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2385.000	1.100	1.100	INCH
(279156)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2430.000	1.100	1.100	INCH
(279157)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2475.000	1.100	1.100	INCH
(279158)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2520.000	1.100	1.100	INCH
(279159)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2565.000	1.100	1.100	INCH
(279160)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2610.000	1.100	1.100	INCH
(279161)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2655.000	1.100	1.100	INCH
(279162)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2700.000	1.100	1.100	INCH
(279163)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2745.000	1.100	1.100	INCH
(279164)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2790.000	1.100	1.100	INCH
(279165)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2835.000	1.100	1.100	INCH
(279166)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2880.000	1.100	1.100	INCH
(279167)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2925.000	1.100	1.100	INCH
(279168)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	2970.000	1.100	1.100	INCH
(279169)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3015.000	1.100	1.100	INCH
(279170)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3060.000	1.100	1.100	INCH
(279171)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3105.000	1.100	1.100	INCH
(279172)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3150.000	1.100	1.100	INCH
(279173)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3195.000	1.100	1.100	INCH
(279174)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3240.000	1.100	1.100	INCH
(279175)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3285.000	1.100	1.100	INCH
(279176)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3330.000	1.100	1.100	INCH
(279177)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3375.000	1.100	1.100	INCH
(279178)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3420.000	1.100	1.100	INCH
(279179)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3465.000	1.100	1.100	INCH
(279180)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3510.000	1.100	1.100	INCH
(279181)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3555.000	1.100	1.100	INCH
(279182)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3600.000	1.100	1.100	INCH
(279183)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3645.000	1.100	1.100	INCH
(279184)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3690.000	1.100	1.100	INCH
(279185)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3735.000	1.100	1.100	INCH
(279186)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3780.000	1.100	1.100	INCH
(279187)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3825.000	1.100	1.100	INCH
(279188)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3870.000	1.100	1.100	INCH
(279189)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3915.000	1.100	1.100	INCH
(279190)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	3960.000	1.100	1.100	INCH
(279191)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4005.000	1.100	1.100	INCH
(279192)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4050.000	1.100	1.100	INCH
(279193)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4095.000	1.100	1.100	INCH
(279194)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4140.000	1.100	1.100	INCH
(279195)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4185.000	1.100	1.100	INCH
(279196)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4230.000	1.100	1.100	INCH
(279197)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4275.000	1.100	1.100	INCH
(279198)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4320.000	1.100	1.100	INCH
(279199)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4365.000	1.100	1.100	INCH
(279200)	WSPC 554 (BA1P) PRS/SRB (NO GRIT)	0.000	4410.000	1.100	1.100	INCH



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

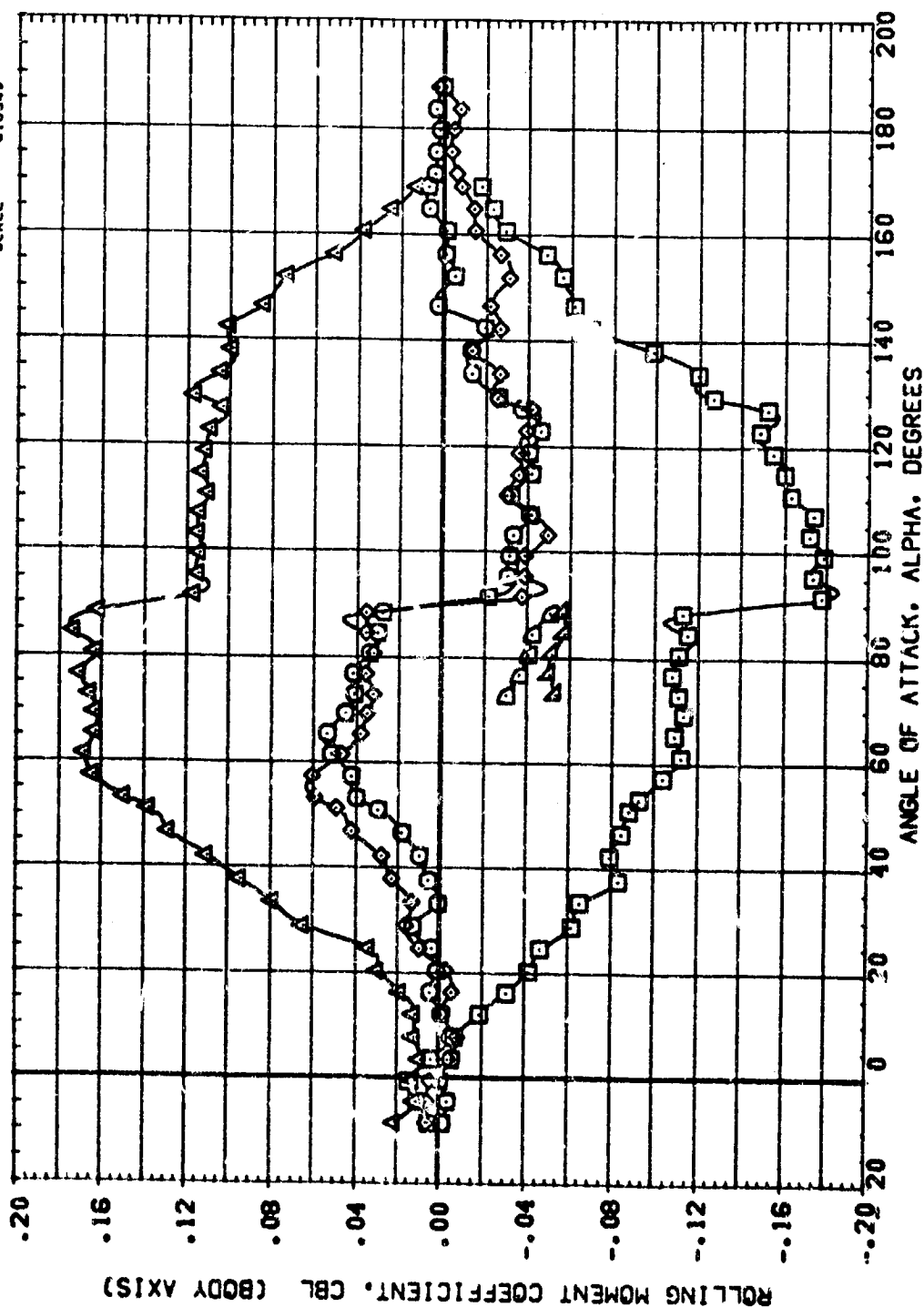
(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTRK	REFERENCE INFORMATION
(279102)	WSPC 534 (3A1P) PWR/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SRFP 0.5030 58.1M.
(279103)	WSPC 534 (3A1P) PWR/SRB (NO GRIT)	0.000	45.300	1.100	1.100	LRFP 0.8000 1NCH
(279104)	WSPC 534 (3A1P) PWR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SRFP 0.8000 1NCH
(279105)	WSPC 534 (3A1P) PWR/SRB (NO GRIT)	0.000	133.000	1.100	1.100	XHRP 0.0810 1NCH
(279106)	WSPC 534 (3A1P) PWR/SRB (NO GRIT)	0.000	132.500	1.100	1.100	YHRP 0.0000
(279107)	WSPC 534 (3A1P) PWR/SRB (NO GRIT)	0.000	137.500	1.100	1.100	ZHRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PA08TK	APT3TK	REFERENCE INFORMATION
(279108)	WPC 334 (SA1P) PRP/SRB (NO GRIT)	0.000	0.000	0.000	0.000	SREP 0.5030 80. IN.
(279109)	WPC 334 (SA1P) PRP/SRB (NO GRIT)	0.000	45.000	1.100	1.100	LREP 0.8000 INCH
(279110)	WPC 334 (SA1P) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	SREP 0.8000 INCH
(279111)	WPC 334 (SA1P) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	XMRP 0.0810 INCH
(279112)	WPC 334 (SA1P) PRP/SRB (NO GRIT)	0.000	112.500	1.100	1.100	YMRP 0.0000
(279113)	WPC 334 (SA1P) PRP/SRB (NO GRIT)	0.000	157.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B)MACH = .90

REFERENCE INFORMATION	
BREF	0.5030 34.1 IN.
LREF	0.0000 INCH
BREF	0.0000 INCH
XMRP	6.0310 INCH
YMRP	0.0000
ZMRP	0.0000
SCALE	0.0043



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DATA SET 31400L CONFIGURATION DESCRIPTION
 (273100) NSPC 334 (3A1P) PRR/SRB (NO CRIT)
 (273100) NSPC 334 (3A1P) PRR/SRB (NO CRIT)
 (273100) NSPC 334 (3A1P) PRR/SRB (NO CRIT)
 (273100) NSPC 334 (3A1P) PRR/SRB (NO CRIT)
 (273100) NSPC 334 (3A1P) PRR/SRB (NO CRIT)
 (273100) NSPC 334 (3A1P) PRR/SRB (NO CRIT)

BETA 0.000 0.000 0.000 0.000 0.000 0.000
 PDC 43.000 43.000 43.000 43.000 43.000 43.000
 XMP 80.000 80.000 80.000 80.000 80.000 80.000
 YMP 135.000 135.000 135.000 135.000 135.000 135.000
 ZMP 112.500 112.500 112.500 112.500 112.500 112.500
 SCALE 0.000 0.000 0.000 0.000 0.000 0.000

APR 1974

APR 1974

REFERENCE INFORMATION

SRP 0.5000 0.5000 0.5000 0.5000 0.5000 0.5000

LRP 0.5000 0.5000 0.5000 0.5000 0.5000 0.5000

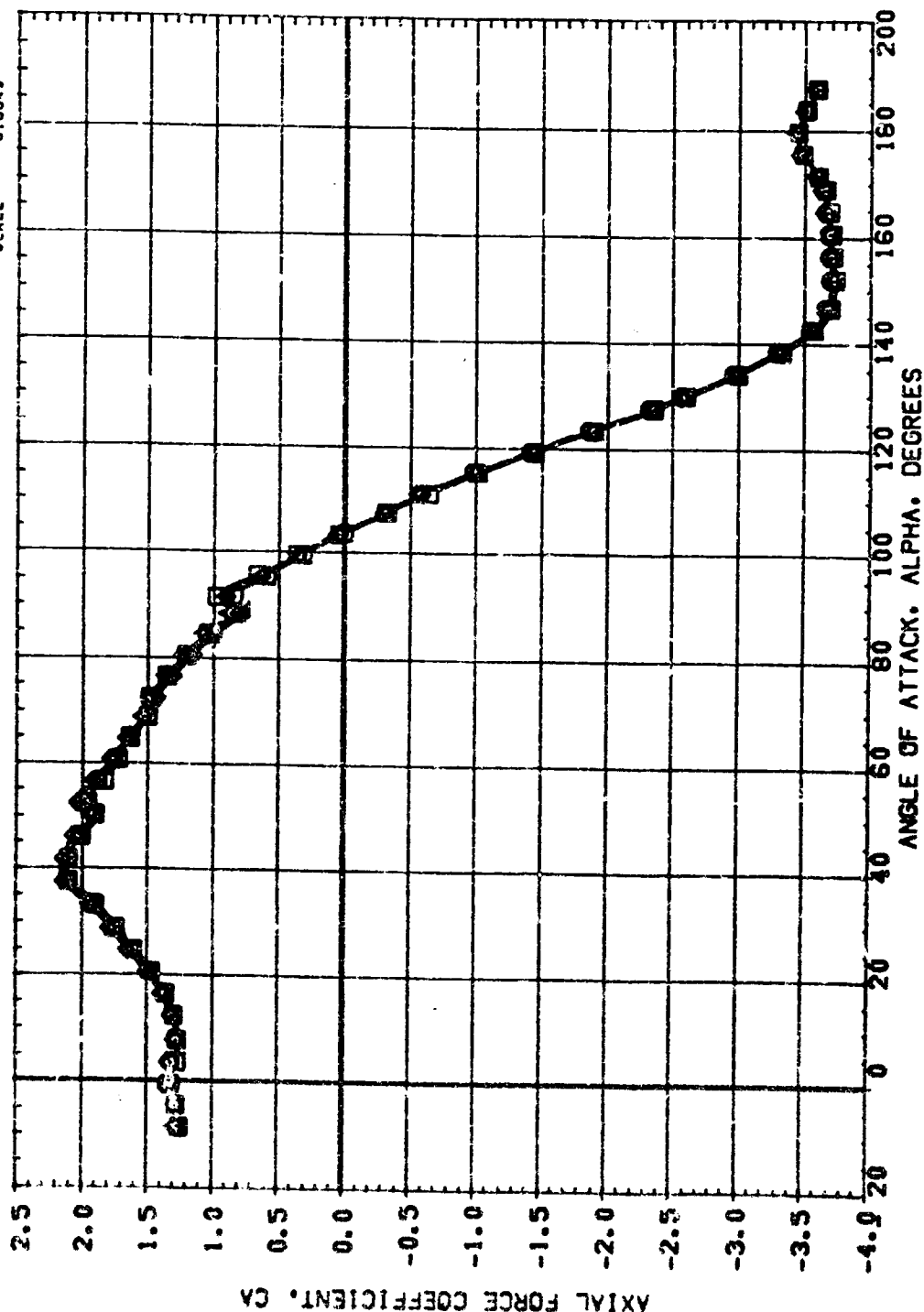
BRP 0.5000 0.5000 0.5000 0.5000 0.5000 0.5000

XMP 0.5000 0.5000 0.5000 0.5000 0.5000 0.5000

YMP 0.5000 0.5000 0.5000 0.5000 0.5000 0.5000

ZMP 0.5000 0.5000 0.5000 0.5000 0.5000 0.5000

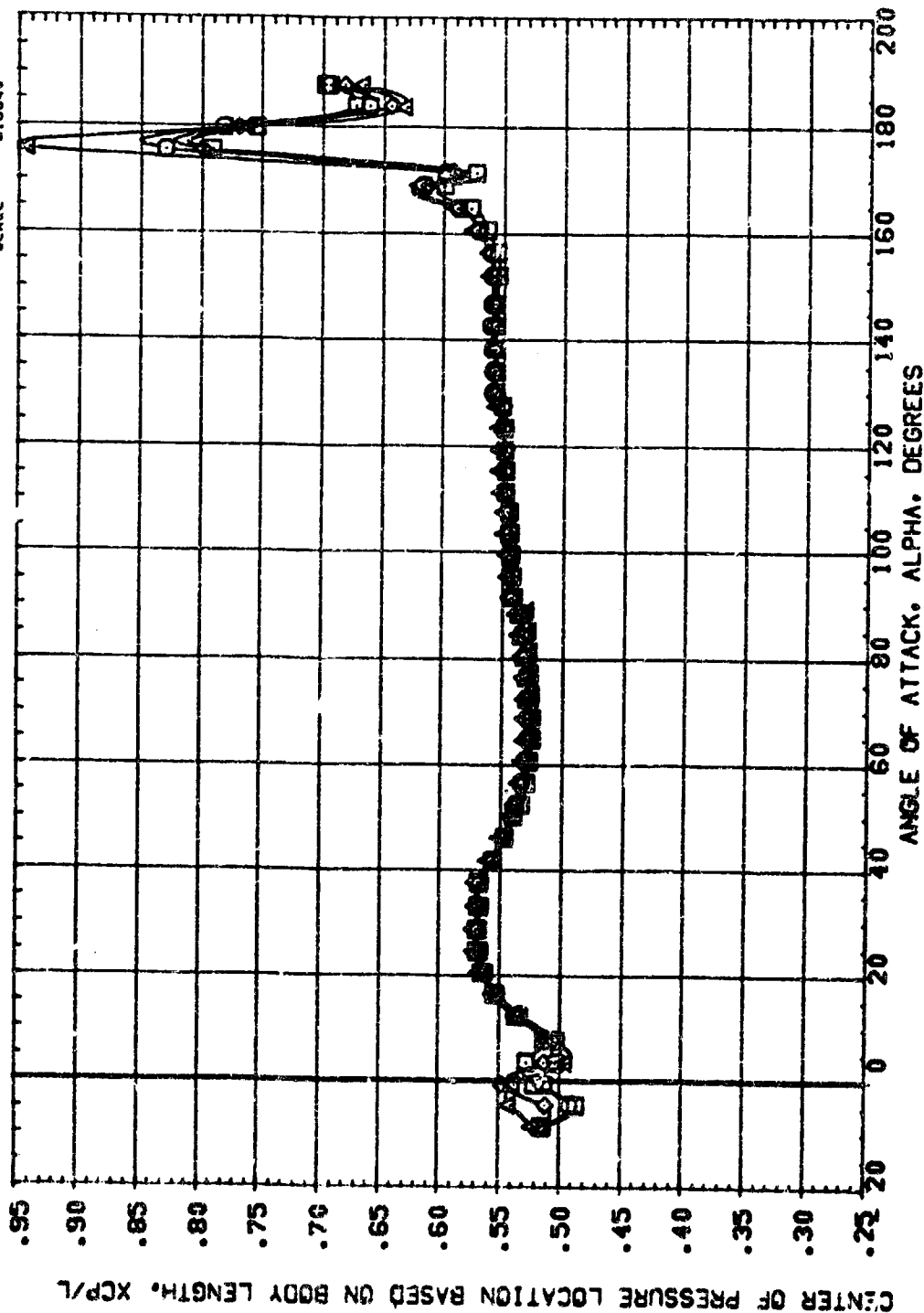
SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(E)MACH = 3.48

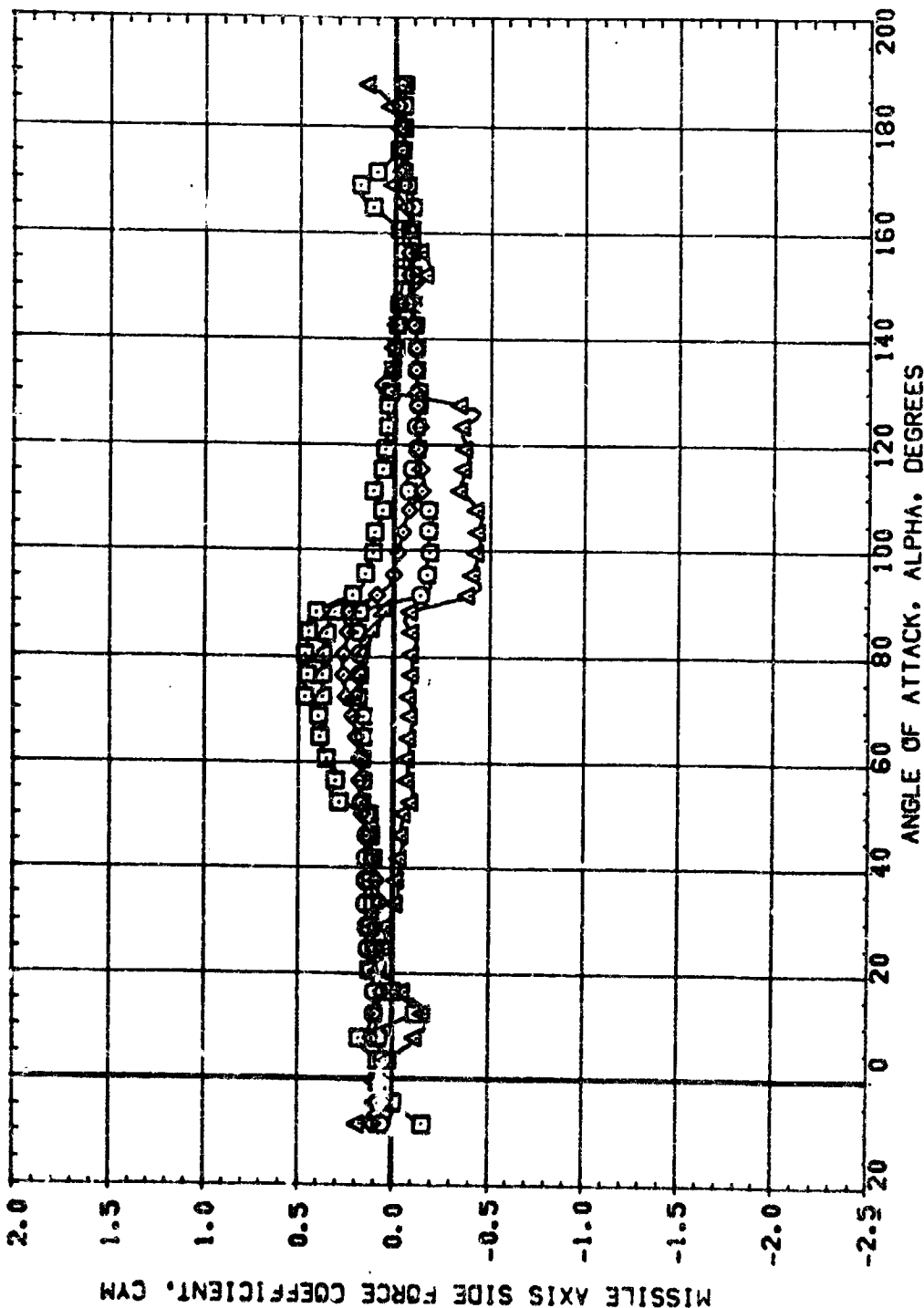
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTR	APTRR	REFERENCE INFORMATION
(270102)	WSPC 324 (3A1P) PRR/SRS (NO GRIT)	0.000	0.000	0.000	0.000	SREF 0.5030 SQ. IN.
(270103)	WSPC 324 (3A1P) PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	LREF 0.6000 INCH
(270104)	WSPC 324 (3A1P) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	BREF 0.6000 INCH
(270105)	WSPC 324 (3A1P) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	YREF 0.6010 INCH
(270106)	WSPC 324 (3A1P) PRR/SRS (NO GRIT)	0.000	180.000	1.100	1.100	ZREF 0.0000
(270107)	WSPC 324 (3A1P) PRR/SRS (NO GRIT)	0.000	225.000	1.100	1.100	SCALE 0.0049



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(E)MACH = 3.48

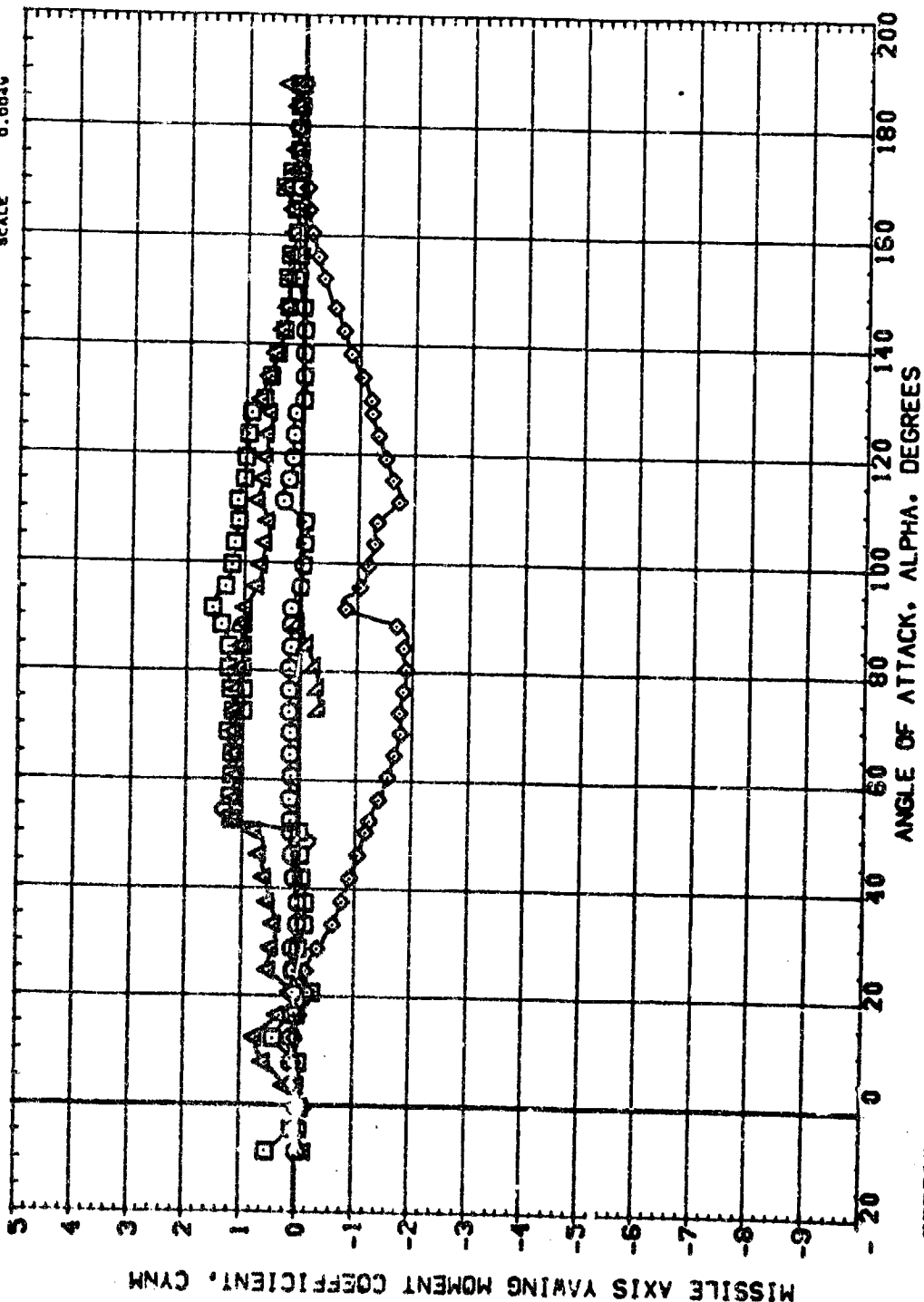
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PW03TA	APT03TA	REFERENCE INFORMATION
(279102)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	0.000	0.000	0.000	0.5030 INCH
(279103)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	43.000	1.100	1.100	0.8000 INCH
(279104)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	90.000	1.100	1.100	0.8000 INCH
(279105)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	135.000	1.100	1.100	0.8000 INCH
(279106)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	180.000	1.100	1.100	0.8000 INCH
(279107)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	225.000	1.100	1.100	0.8000 INCH
(279108)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	270.000	1.100	1.100	0.8000 INCH
(279109)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	315.000	1.100	1.100	0.8000 INCH
(279110)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	360.000	1.100	1.100	0.8000 INCH
(279111)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	405.000	1.100	1.100	0.8000 INCH
(279112)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	450.000	1.100	1.100	0.8000 INCH
(279113)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	495.000	1.100	1.100	0.8000 INCH
(279114)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	540.000	1.100	1.100	0.8000 INCH
(279115)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	585.000	1.100	1.100	0.8000 INCH
(279116)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	630.000	1.100	1.100	0.8000 INCH
(279117)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	675.000	1.100	1.100	0.8000 INCH
(279118)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	720.000	1.100	1.100	0.8000 INCH
(279119)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	765.000	1.100	1.100	0.8000 INCH
(279120)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	810.000	1.100	1.100	0.8000 INCH
(279121)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	855.000	1.100	1.100	0.8000 INCH
(279122)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	900.000	1.100	1.100	0.8000 INCH
(279123)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	945.000	1.100	1.100	0.8000 INCH
(279124)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	990.000	1.100	1.100	0.8000 INCH
(279125)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1035.000	1.100	1.100	0.8000 INCH
(279126)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1080.000	1.100	1.100	0.8000 INCH
(279127)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1125.000	1.100	1.100	0.8000 INCH
(279128)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1170.000	1.100	1.100	0.8000 INCH
(279129)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1215.000	1.100	1.100	0.8000 INCH
(279130)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1260.000	1.100	1.100	0.8000 INCH
(279131)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1305.000	1.100	1.100	0.8000 INCH
(279132)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1350.000	1.100	1.100	0.8000 INCH
(279133)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1395.000	1.100	1.100	0.8000 INCH
(279134)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1440.000	1.100	1.100	0.8000 INCH
(279135)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1485.000	1.100	1.100	0.8000 INCH
(279136)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1530.000	1.100	1.100	0.8000 INCH
(279137)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1575.000	1.100	1.100	0.8000 INCH
(279138)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1620.000	1.100	1.100	0.8000 INCH
(279139)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1665.000	1.100	1.100	0.8000 INCH
(279140)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1710.000	1.100	1.100	0.8000 INCH
(279141)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1755.000	1.100	1.100	0.8000 INCH
(279142)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1800.000	1.100	1.100	0.8000 INCH
(279143)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1845.000	1.100	1.100	0.8000 INCH
(279144)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1890.000	1.100	1.100	0.8000 INCH
(279145)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1935.000	1.100	1.100	0.8000 INCH
(279146)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	1980.000	1.100	1.100	0.8000 INCH
(279147)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2025.000	1.100	1.100	0.8000 INCH
(279148)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2070.000	1.100	1.100	0.8000 INCH
(279149)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2115.000	1.100	1.100	0.8000 INCH
(279150)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2160.000	1.100	1.100	0.8000 INCH
(279151)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2205.000	1.100	1.100	0.8000 INCH
(279152)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2250.000	1.100	1.100	0.8000 INCH
(279153)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2295.000	1.100	1.100	0.8000 INCH
(279154)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2340.000	1.100	1.100	0.8000 INCH
(279155)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2385.000	1.100	1.100	0.8000 INCH
(279156)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2430.000	1.100	1.100	0.8000 INCH
(279157)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2475.000	1.100	1.100	0.8000 INCH
(279158)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2520.000	1.100	1.100	0.8000 INCH
(279159)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2565.000	1.100	1.100	0.8000 INCH
(279160)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2610.000	1.100	1.100	0.8000 INCH
(279161)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2655.000	1.100	1.100	0.8000 INCH
(279162)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2700.000	1.100	1.100	0.8000 INCH
(279163)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2745.000	1.100	1.100	0.8000 INCH
(279164)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2790.000	1.100	1.100	0.8000 INCH
(279165)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2835.000	1.100	1.100	0.8000 INCH
(279166)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2880.000	1.100	1.100	0.8000 INCH
(279167)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2925.000	1.100	1.100	0.8000 INCH
(279168)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	2970.000	1.100	1.100	0.8000 INCH
(279169)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3015.000	1.100	1.100	0.8000 INCH
(279170)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3060.000	1.100	1.100	0.8000 INCH
(279171)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3105.000	1.100	1.100	0.8000 INCH
(279172)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3150.000	1.100	1.100	0.8000 INCH
(279173)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3195.000	1.100	1.100	0.8000 INCH
(279174)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3240.000	1.100	1.100	0.8000 INCH
(279175)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3285.000	1.100	1.100	0.8000 INCH
(279176)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3330.000	1.100	1.100	0.8000 INCH
(279177)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3375.000	1.100	1.100	0.8000 INCH
(279178)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3420.000	1.100	1.100	0.8000 INCH
(279179)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3465.000	1.100	1.100	0.8000 INCH
(279180)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3510.000	1.100	1.100	0.8000 INCH
(279181)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3555.000	1.100	1.100	0.8000 INCH
(279182)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3600.000	1.100	1.100	0.8000 INCH
(279183)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3645.000	1.100	1.100	0.8000 INCH
(279184)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3690.000	1.100	1.100	0.8000 INCH
(279185)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3735.000	1.100	1.100	0.8000 INCH
(279186)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3780.000	1.100	1.100	0.8000 INCH
(279187)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3825.000	1.100	1.100	0.8000 INCH
(279188)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3870.000	1.100	1.100	0.8000 INCH
(279189)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3915.000	1.100	1.100	0.8000 INCH
(279190)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	3960.000	1.100	1.100	0.8000 INCH
(279191)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4005.000	1.100	1.100	0.8000 INCH
(279192)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4050.000	1.100	1.100	0.8000 INCH
(279193)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4095.000	1.100	1.100	0.8000 INCH
(279194)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4140.000	1.100	1.100	0.8000 INCH
(279195)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4185.000	1.100	1.100	0.8000 INCH
(279196)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4230.000	1.100	1.100	0.8000 INCH
(279197)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4275.000	1.100	1.100	0.8000 INCH
(279198)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4320.000	1.100	1.100	0.8000 INCH
(279199)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4365.000	1.100	1.100	0.8000 INCH
(279200)	WPC 354 (3A1P) PER/MS (NO 0217)	0.000	4410.000	1.100	1.100	0.8000 INCH



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(MACH = 3.48)

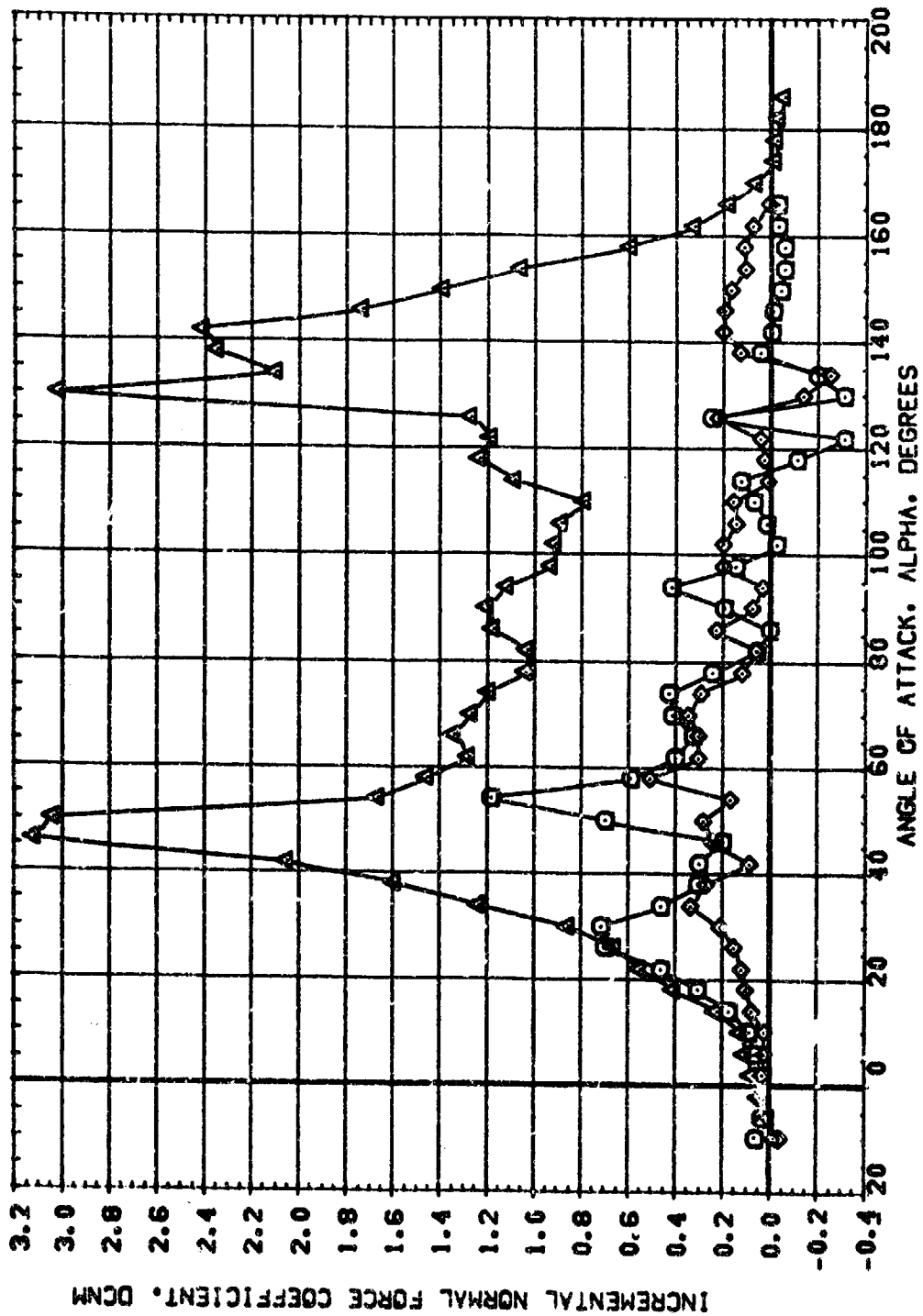
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PA037K	APT37K	REFERENCE INFORMATION
(2791001)	WSPC 334 (3A1P) PRP/3RB (NO 3A1T)	0.000	0.000	0.000	0.000	SRP 0.9030
(2791002)	WSPC 334 (3A1P) PRP/3RB (NO 3A1T)	0.000	45.000	1.100	1.100	LRP 0.8000
(2791003)	WSPC 334 (3A1P) PRP/3RB (NO 3A1T)	0.000	90.000	1.100	1.100	SRP 0.8000
(2791004)	WSPC 334 (3A1P) PRP/3RB (NO 3A1T)	0.000	135.000	1.100	1.100	MRP 0.0610
(2791005)	WSPC 334 (3A1P) PRP/3RB (NO 3A1T)	0.000	112.500	1.100	1.100	YMRP 0.0000
(2791006)	WSPC 334 (3A1P) PRP/3RB (NO 3A1T)	0.000	137.500	1.100	1.100	ZMRP 0.0000
						SCALE 0.004V



EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(E)MACH = 3.48

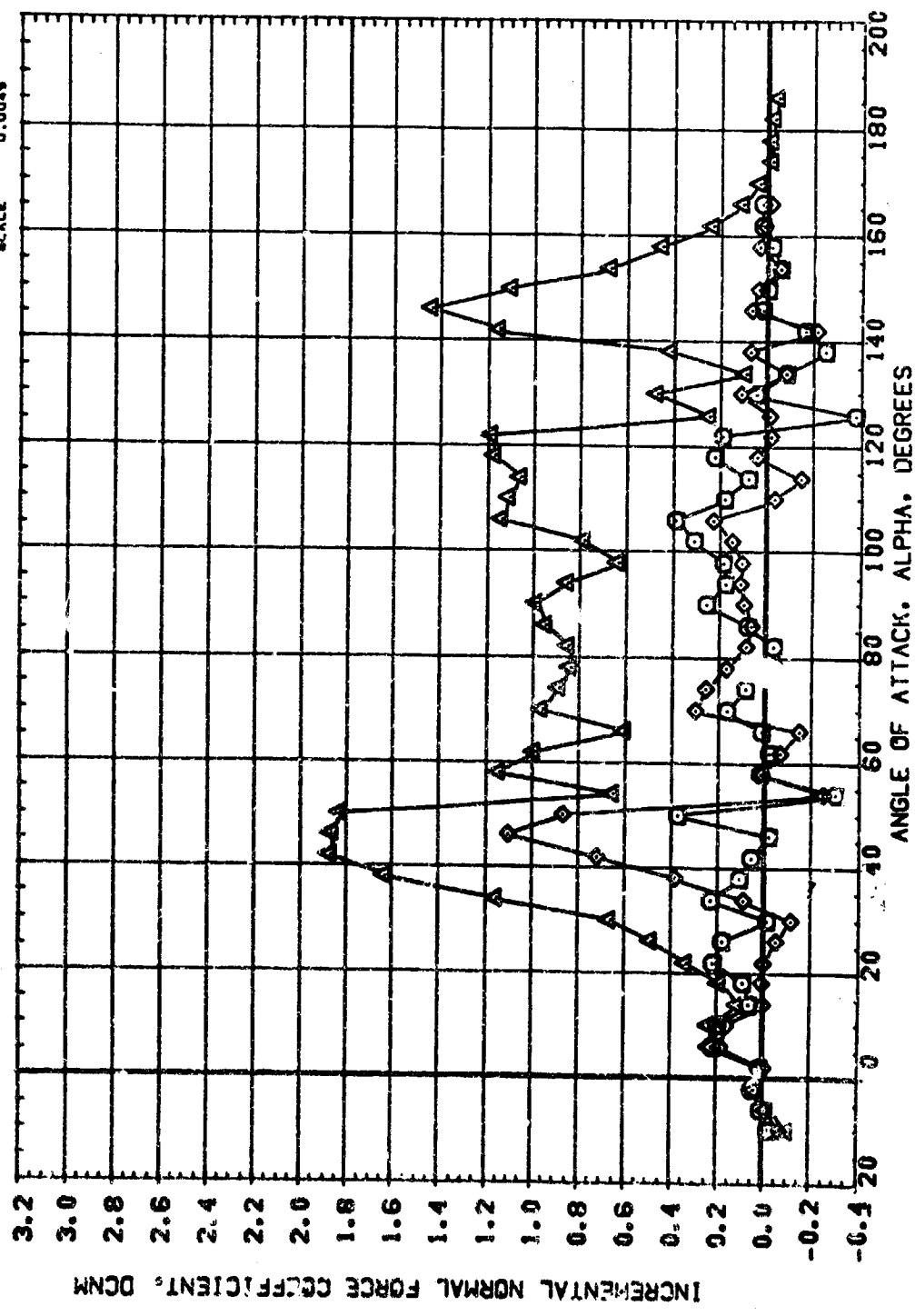
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTR	APYSTR	REFERENCE INFORMATION
(57101)	WPC 334 (SALP) PER/SRS (NO SHIT)	0.000	48.000	1.100	1.100	SREP 0.8030 38.14 INCH
(57102)	WPC 334 (SALP) PER/SRS (NO SHIT)	0.000	90.000	1.100	1.100	LREP 0.8000 INCH
(57103)	WPC 334 (SALP) PER/SRS (NO SHIT)	-0.500	135.000	1.100	1.100	SREP 0.8000 INCH
						XMRP 0.0810 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0048



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

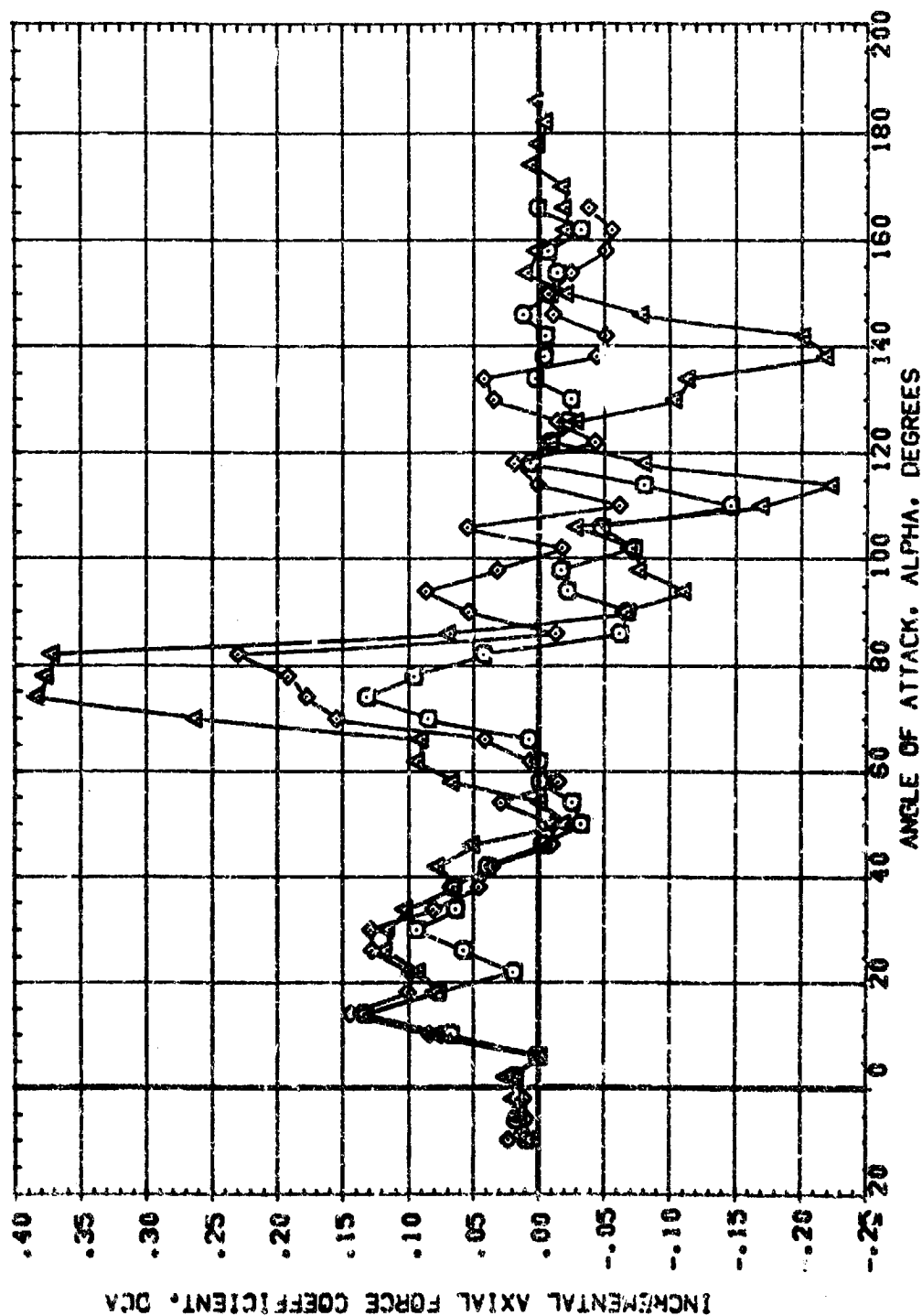
(A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	FWOSTR	APTSR	REFERENCE INFORMATION
(1979109)	MSPC 334 (BALP) PRR/SRB (NO GRIT)	0.000	49.000	1.100	1.100	SRP 0.9330 36.1N.
(1979109)	MSPC 334 (BALP) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LRP 0.8000 INCH
(1979110)	MSPC 334 (BALP) PRR/SRB (NO GRIT)	0.000	139.000	1.100	1.100	SRP 0.8000 INCH
						MRP 0.0610 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



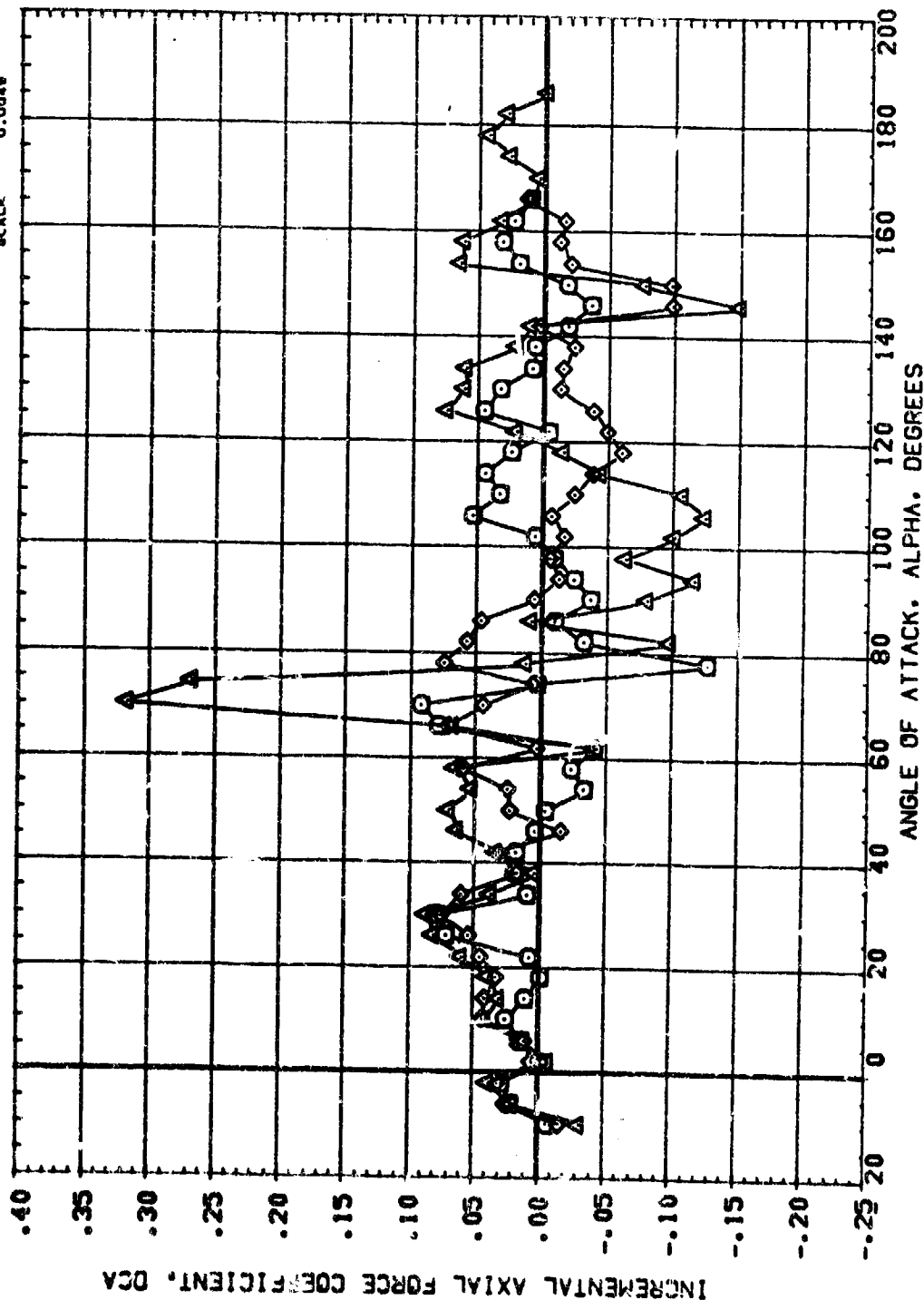
INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
 (B)MACH = .90

	BETA	DELPHI	PUDSTH	AFTSTK	REFP	REFERENCE INFORMATION	Q. IN.
	0.0008	49.0000	1.100	1.100	GRIP	0.503C	INCH
	0.0000	70.0000	1.100	1.100	LREP	0.5000	INCH
	0.0000	139.0000	1.100	1.100	XMPR	0.061D	INCH
					YMPR	0.0000	
					ZMPR	0.0000	
					SCALE	0.0049	



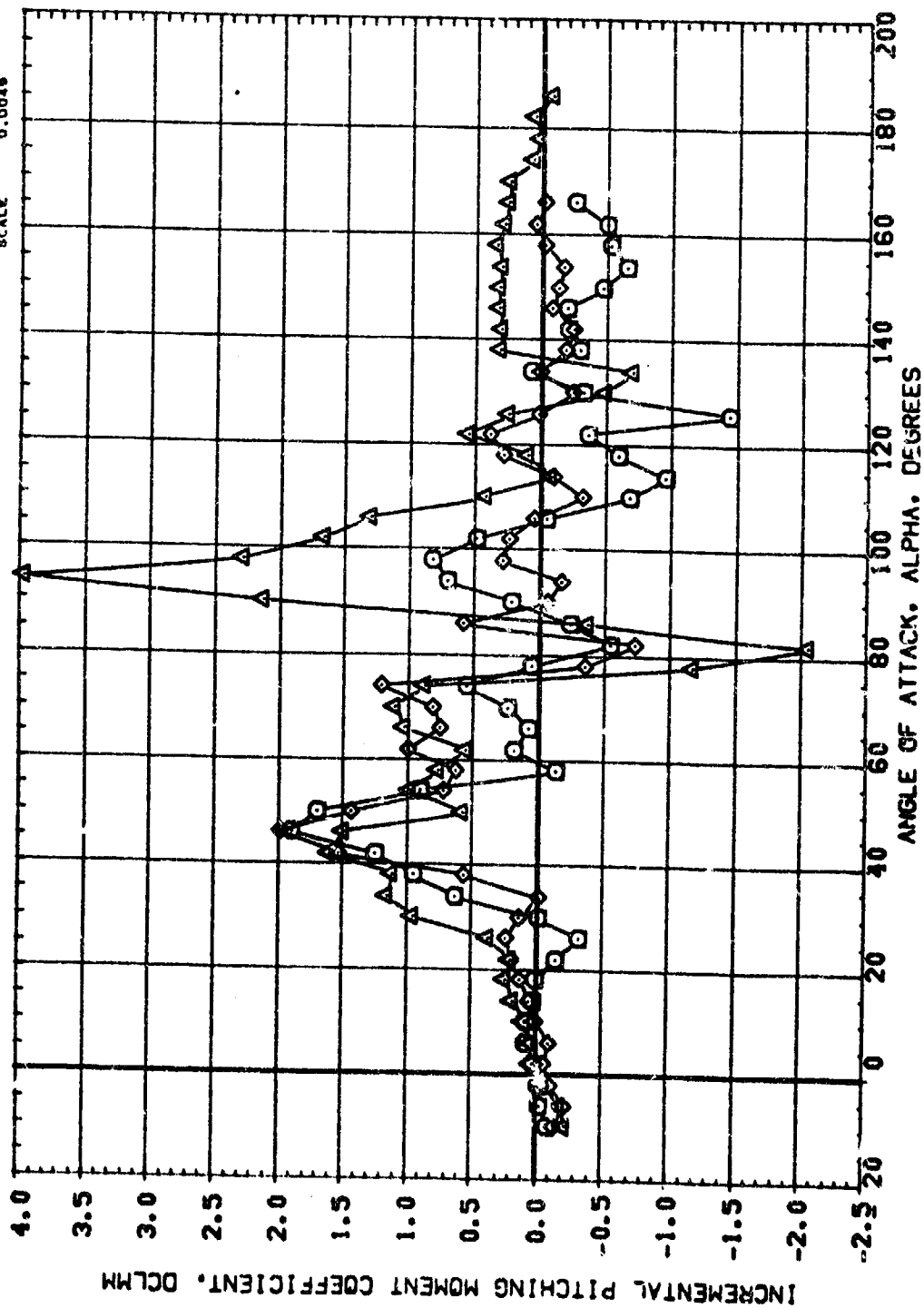
INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(A)MACH = .60 PAGE 52

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PWSTH	APSTH	REFERENCE INFORMATION
(879108)	WPC 884 (SALP) PER/SMB (NO SRIT)	0.000	45.000	1.100	1.100	SREF 0.5030 INCH
(879109)	WPC 884 (SALP) PER/SMB (NO SRIT)	0.000	90.000	1.100	1.100	LREF 0.8000 INCH
(879110)	WPC 884 (SALP) PER/SMB (NO SRIT)	0.000	135.000	1.100	1.100	SREF 0.8000 INCH
						XMRP 6.0810 INCH
						ZMRP 0.0000
						SCALE 0.0048



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APTSTR	REFERENCE INFORMATION
(187100)	WPC 334 (3A1P) PER/SRS (NO GRIT)	0.000	45.000	1.100	1.100	SREF 0.5030 88.1N.
(187101)	WPC 334 (3A1P) PER/SRS (NO GRIT)	0.000	90.000	1.100	1.100	LREF 0.8000 1NCH
(187110)	WPC 334 (3A1P) PER/SRS (NO GRIT)	0.000	135.000	1.100	1.100	SREF 0.8000 1NCH
						ZMRP 6.0810 1NCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049

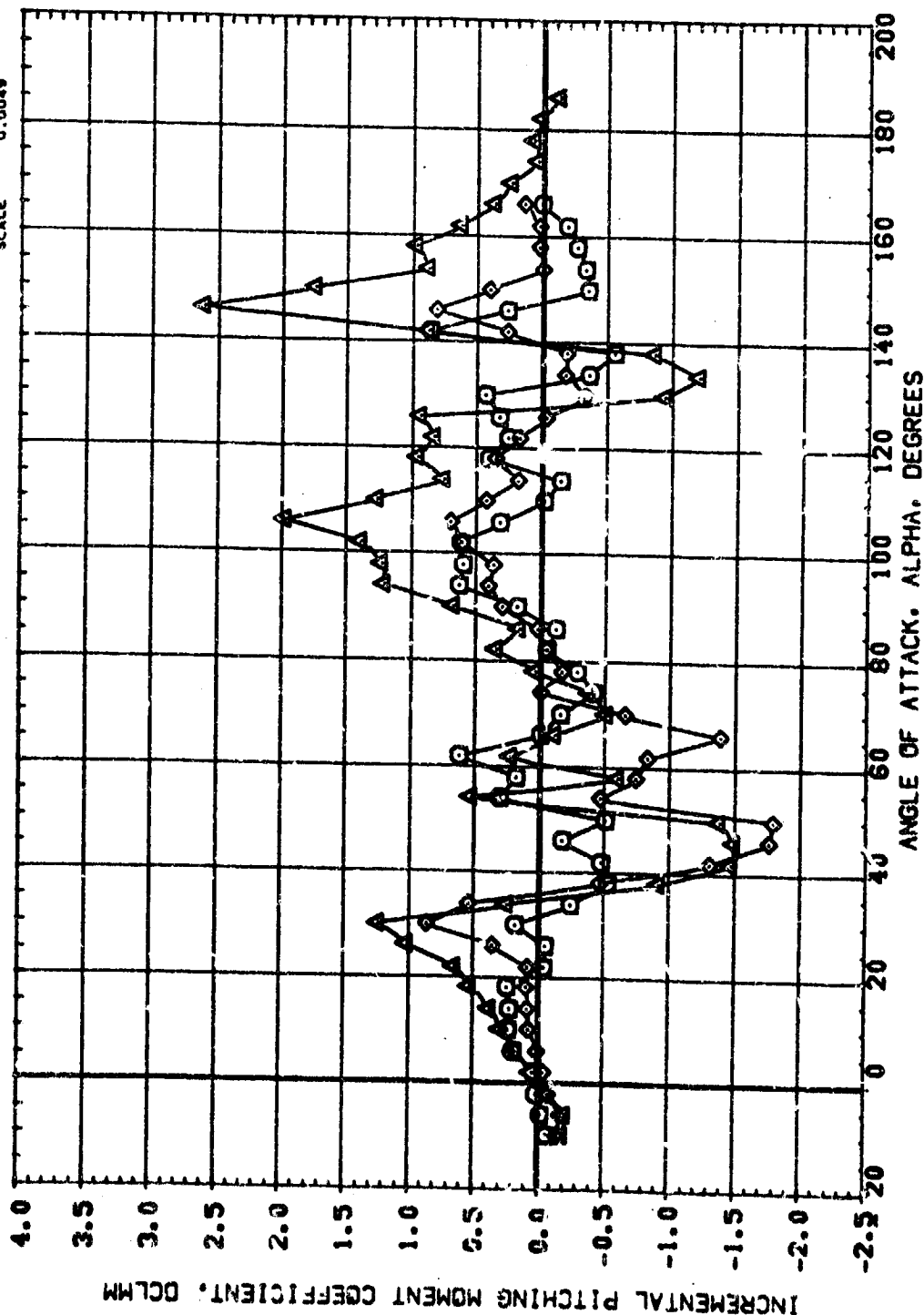


INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A) MACH = .60

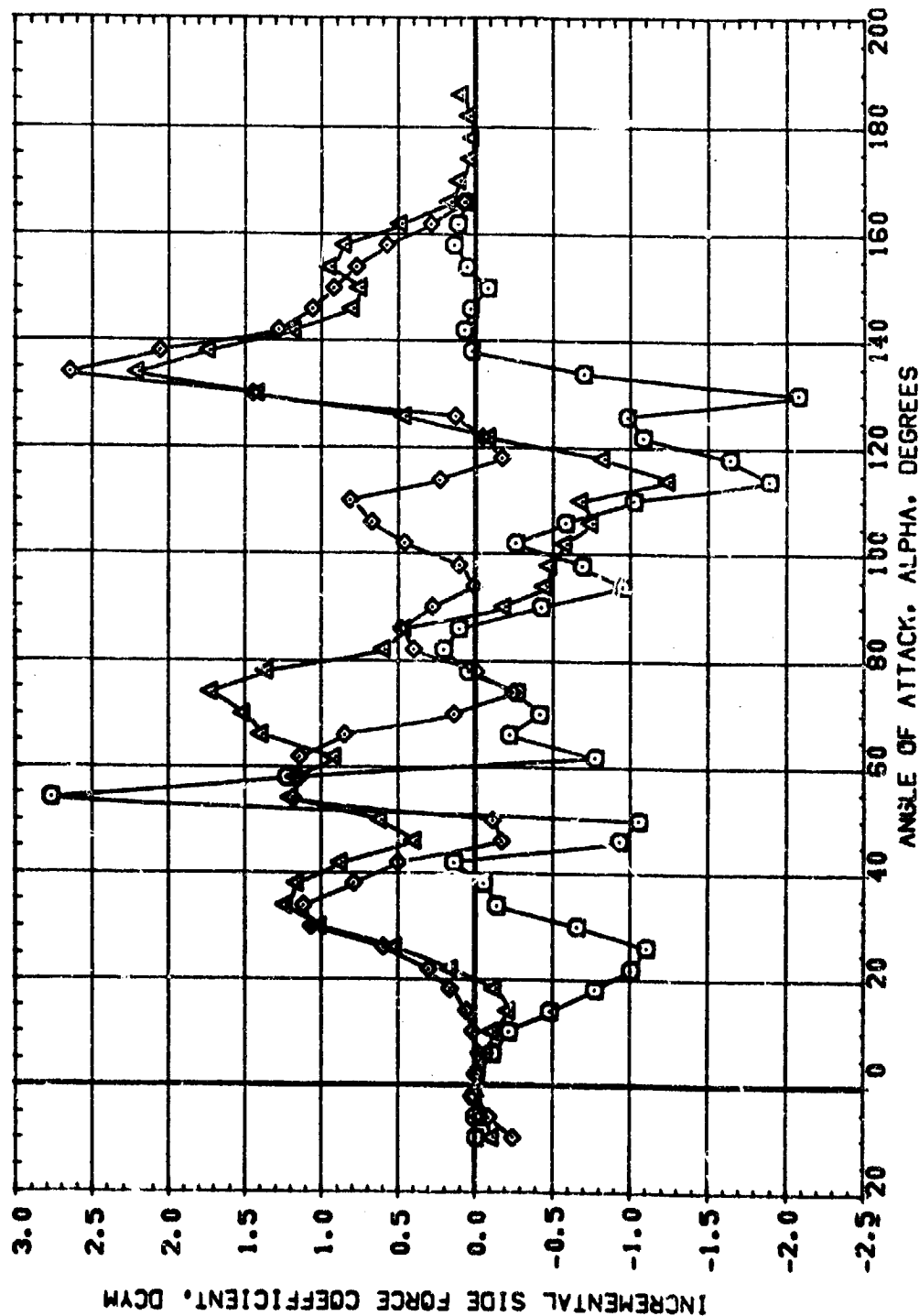
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (179100) MSFC 334 (SAIP) PRS/SBS (NO GRIT)
 (179101) MSFC 334 (SAIP) PRS/SBS (NO GRIT)
 (179102) MSFC 334 (SAIP) PRS/SBS (NO GRIT)

BETA DELPHI P/DSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.100 1.100 BRPF 0.5030 SQ. IN.
 0.000 90.000 1.100 1.100 LREF 0.8000 INCH
 0.000 135.000 1.100 1.100 XREF 0.8000 INCH
 XREF 0.8010 INCH
 YREF 0.0000
 ZREF 0.0000
 SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STROKES ON AERODYNAMIC CHARACTERISTICS
 (B)MACH = .90

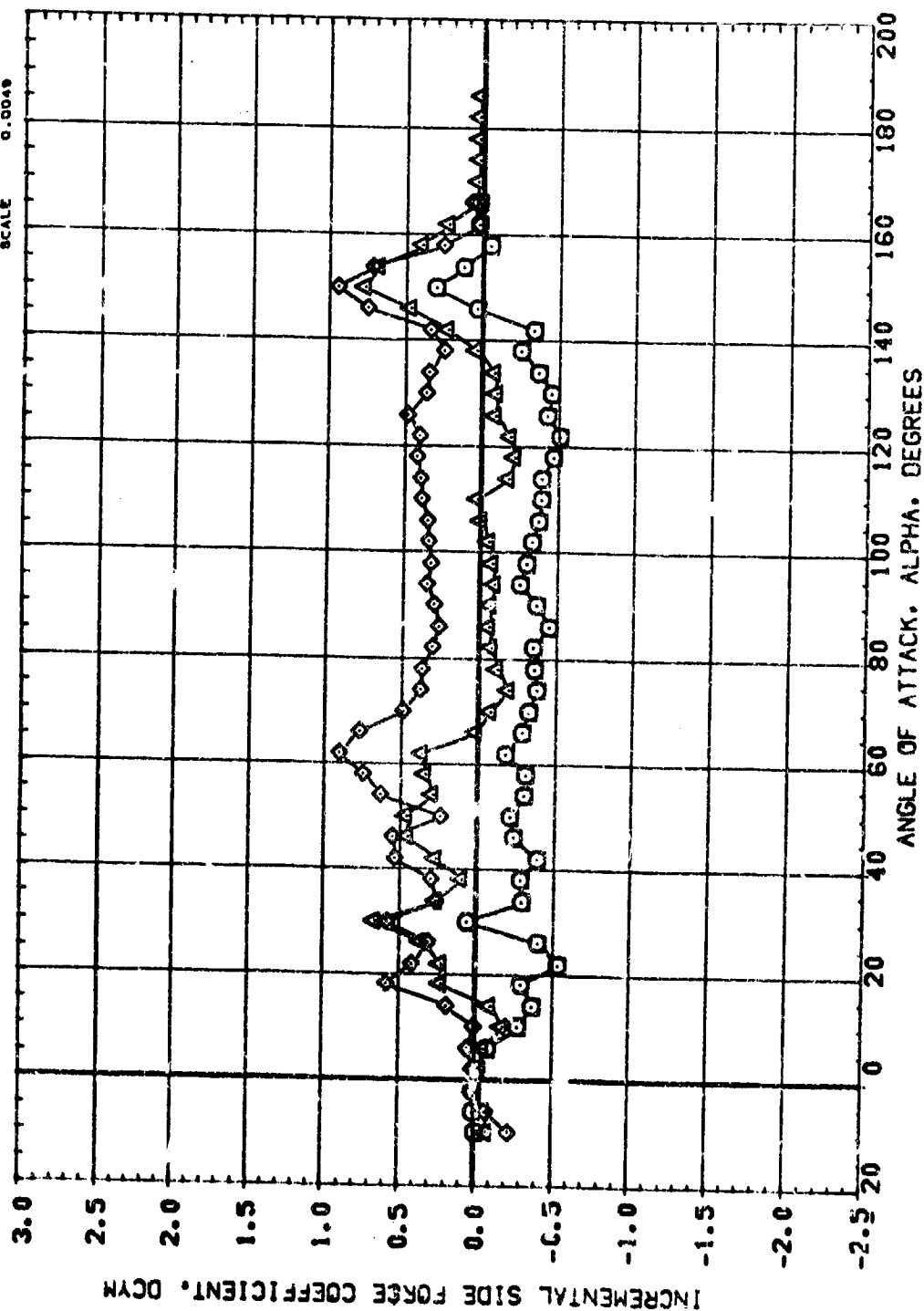
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PAOSTK	APSTK	REFERENCE INFORMATION
(B791001)	WPC 954 (3A1P) PRB/SRB (NO GRIT)	0.000	45.000	1.100	1.100	BREF 0.5030 36.1M.
(B791001)	WPC 954 (3A1P) PRB/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LREF 0.8000 1INCH
(B791001)	WPC 954 (3A1P) PRB/SRB (NO GRIT)	0.000	135.000	1.100	1.100	BREF 0.8000 1INCH
						XMRP 0.0810 1INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

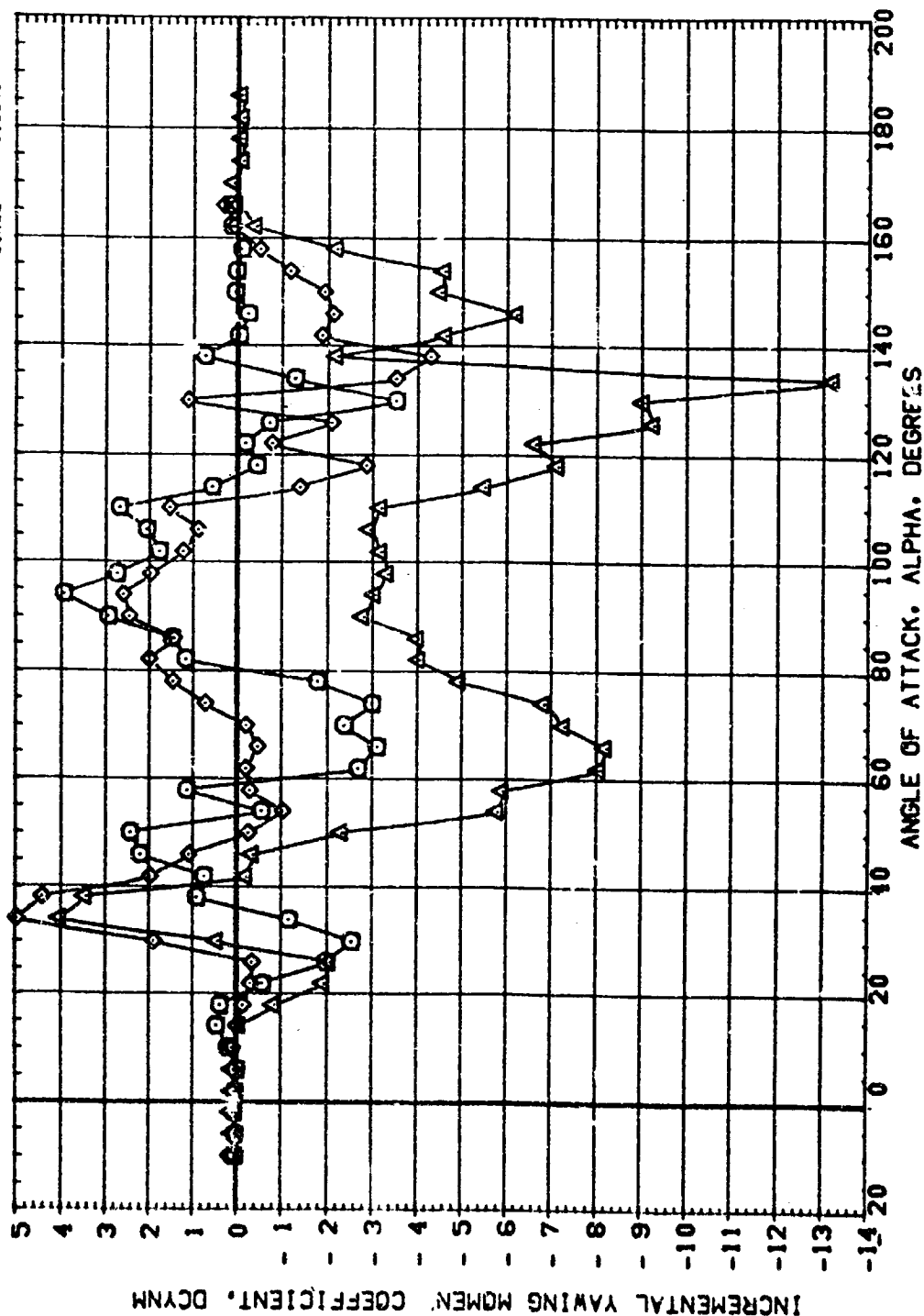
(A)MACH = .60

BETA		DELPHI	PMOSTR	IPSTBK	REFERENCE INFORMATION	
0.000	0.000	45.000	1.100	1.100	SREP	0.5030
0.000	0.000	39.000	1.100	1.100	LREP	0.5030
0.000	0.000	39.000	1.100	1.100	SRIP	0.8000
					YMRP	0.0000
					ZMRP	0.0000
					SCALE	0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APTSTK	REFERENCE INFORMATION
(279108)	NSPC 334 (3A1P) PRH/SRB (NO GRIT)	0.000	43.000	1.100	1.107	SRCP 0.5030 39.1M.
(279109)	NSPC 334 (3A1P) PRH/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LRCP 0.8000 INCH
(279110)	NSPC 334 (3A1P) PRH/SRB (NO GRIT)	0.000	135.000	1.100	1.100	DRCP 0.8000 INCH
						XMRP 0.0810 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049

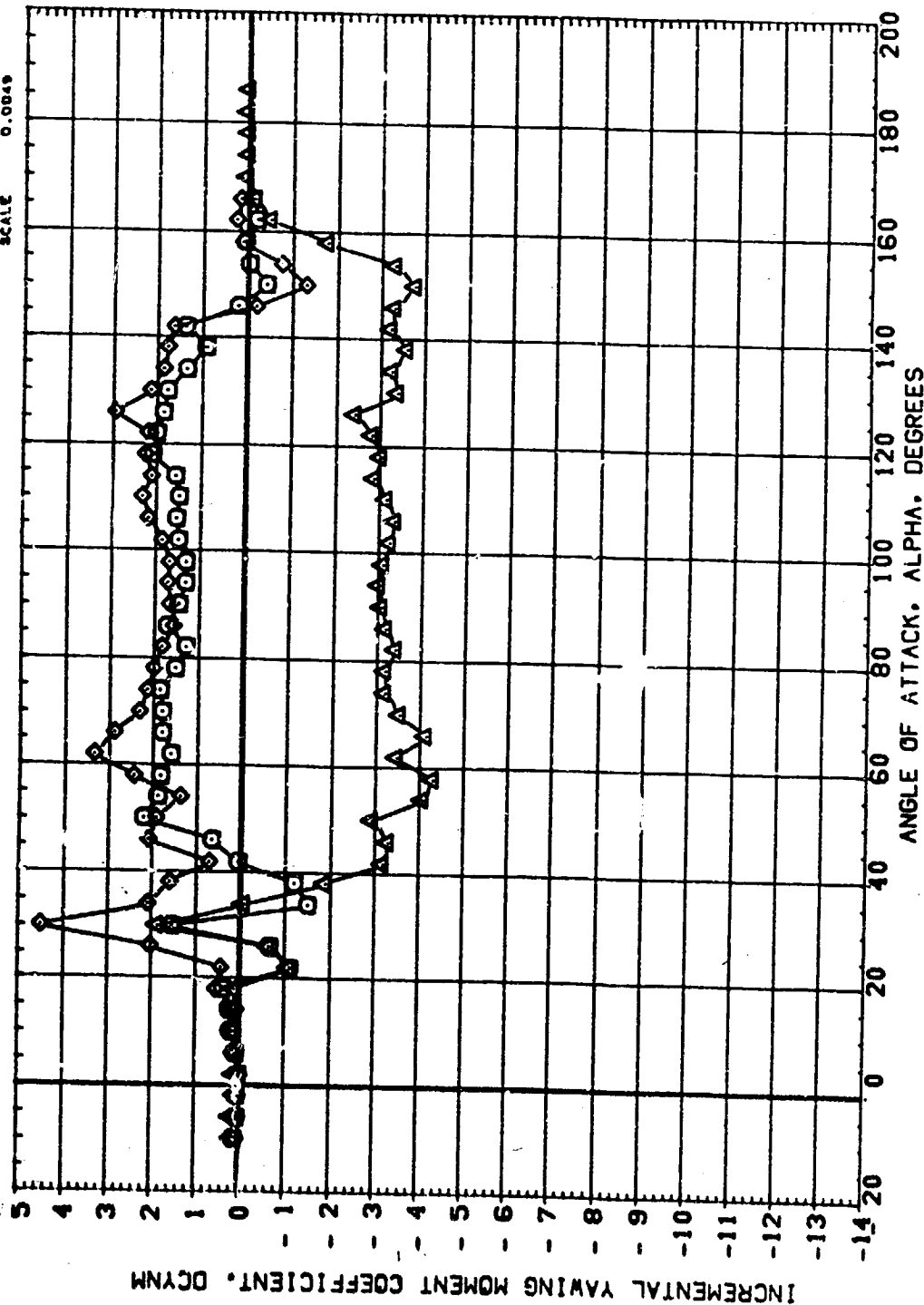


INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A) MACH = .60

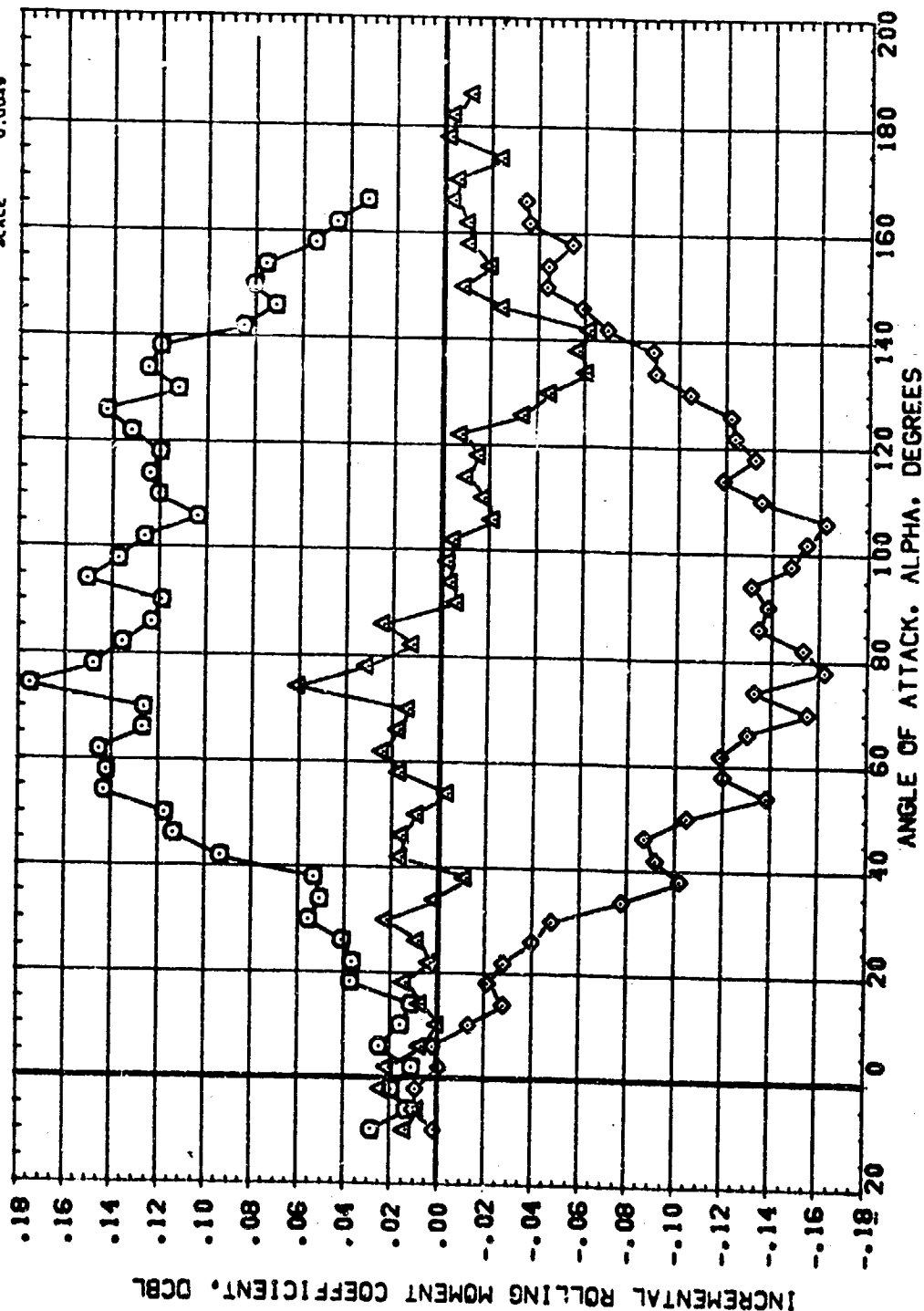
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (075100) \square WPC 554 (BALP) PRS/SRB (NO GRIT)
 (075101) \square WPC 554 (BALP) PRS/SRB (NO GRIT)
 (075110) \diamond WPC 554 (BALP) PRS/SRB (NO GRIT)

BETA DELPHI PQRSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.100 1.100 SREF 0.8030 99.1M.
 0.000 90.000 1.100 1.100 LREF 0.8000 1MCH
 0.000 135.000 1.100 1.100 HREF 0.8010 1MCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



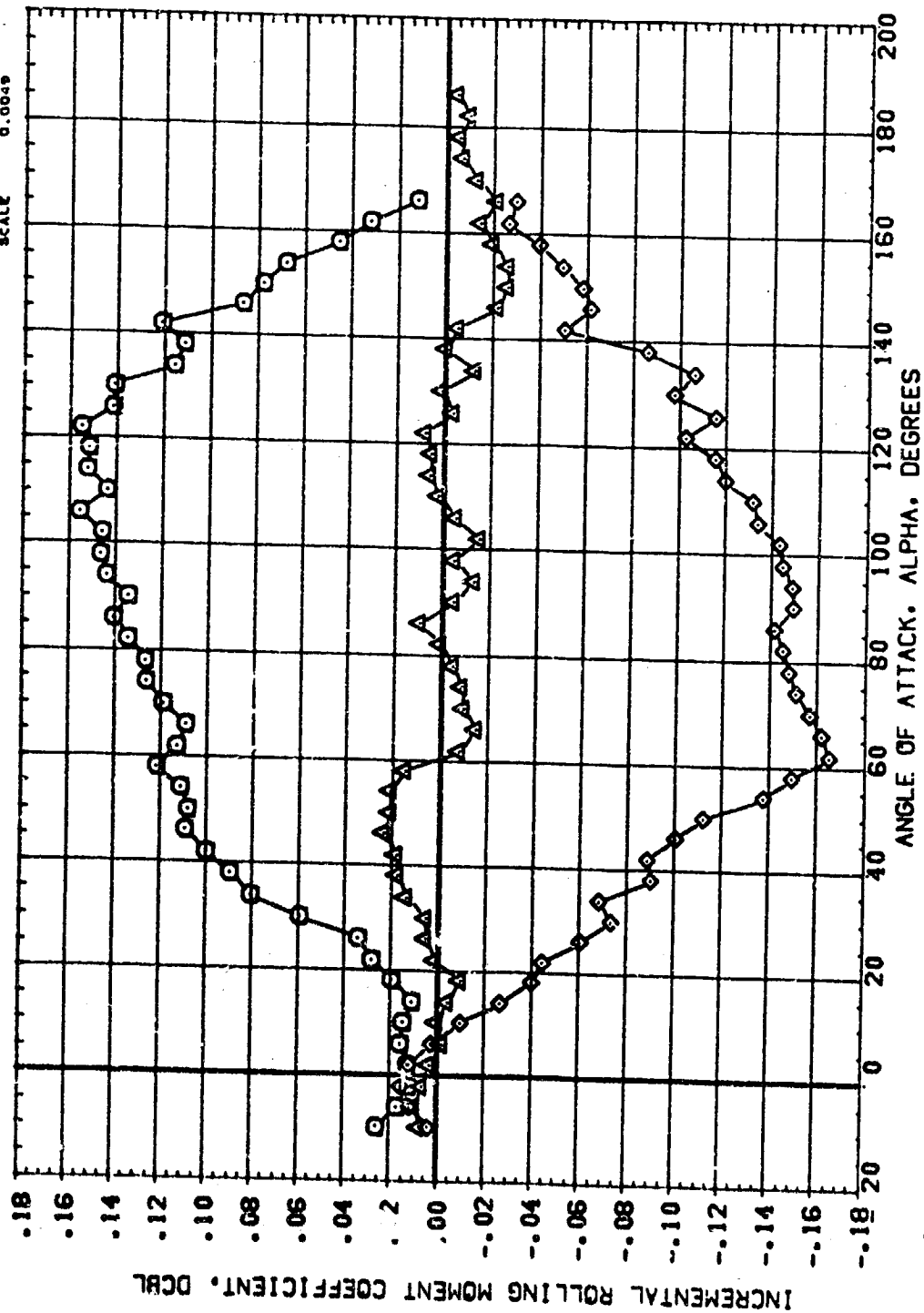
INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
 (B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTR	APTSTR	REFERENCE INFORMATION
WSPC 334 (879106)	WSPC 334 (8A1P)	0.000	43.000	1.100	1.100	BREP 0.8000 88.1M.
WSPC 334 (879109)	WSPC 334 (8A1P)	0.000	90.000	1.100	1.100	LREP 0.8000 1MCM
WSPC 334 (879110)	WSPC 334 (8A1P)	0.000	133.000	1.100	1.100	BREP 0.8000 1MCM
						TMRP 6.0810 1MCM
						TMRP 0.0000
						TMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(A) MACH = .60

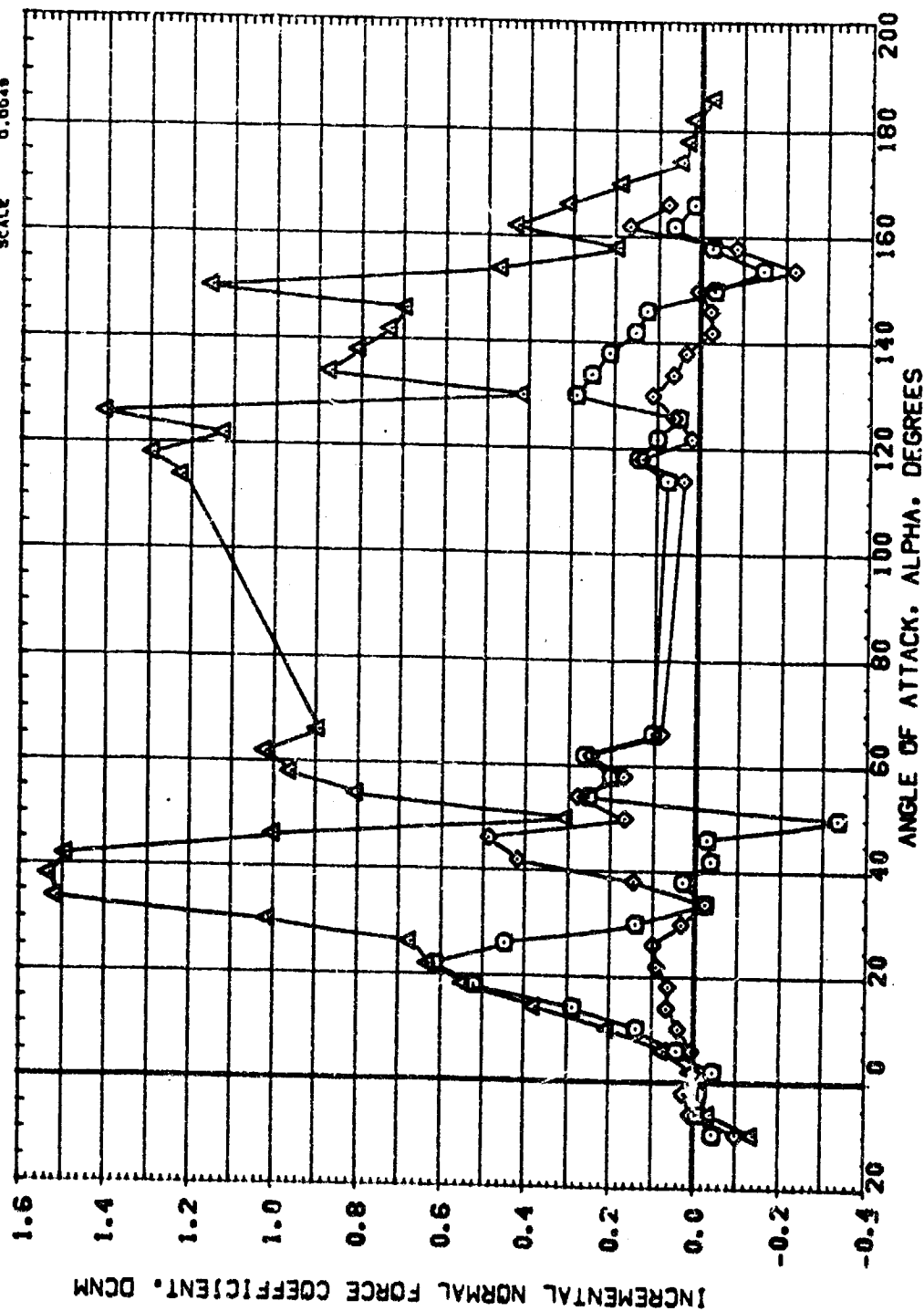
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOATK	APTSTR	REFERENCE INFORMATION
(079100)	WPC 554 (SA1P) PRH/SRS (NO GRIT)	0.000	45.000	1.100	1.100	SREP 0.5030 89.1M
(079101)	WPC 554 (SA1P) PRH/SRS (NO GRIT)	0.000	80.000	1.100	1.100	LREP 0.8000 1MCH
(079110)	WPC 554 (SA1P) PRH/SRS (NO GRIT)	0.000	133.000	1.100	1.100	SREP 0.8000 1MCH
						XREP 0.0810 1MCH
						YREP 0.0000
						ZREP 0.0000
						SCALE 0.0009



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B)MACH = .90

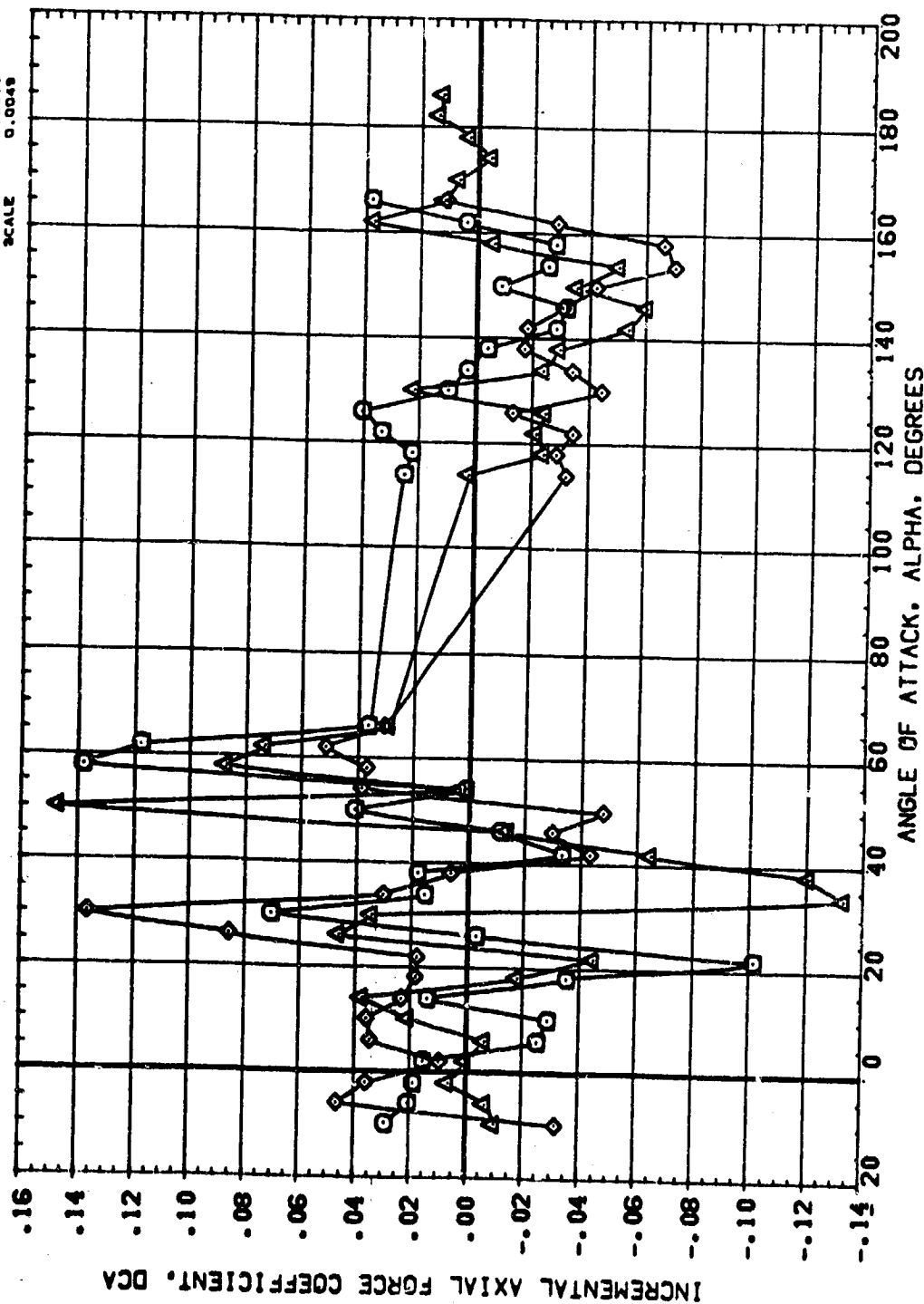
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTH	APSTK	REFERENCE INFORMATION
(CP9108)	HSFC 534 (SALP) PRP/SRB (NO GRIT)	0.000	49.000	1.100	1.100	SRFP 0.5030 INCH
(CP9109)	HSFC 534 (SALP) PRP/SRB (NO GRIT)	0.000	50.000	1.100	1.100	LRFP 0.6000 INCH
(CP9110)	HSFC 534 (SALP) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	SRFP 0.6000 INCH
						XRFP 0.6810 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

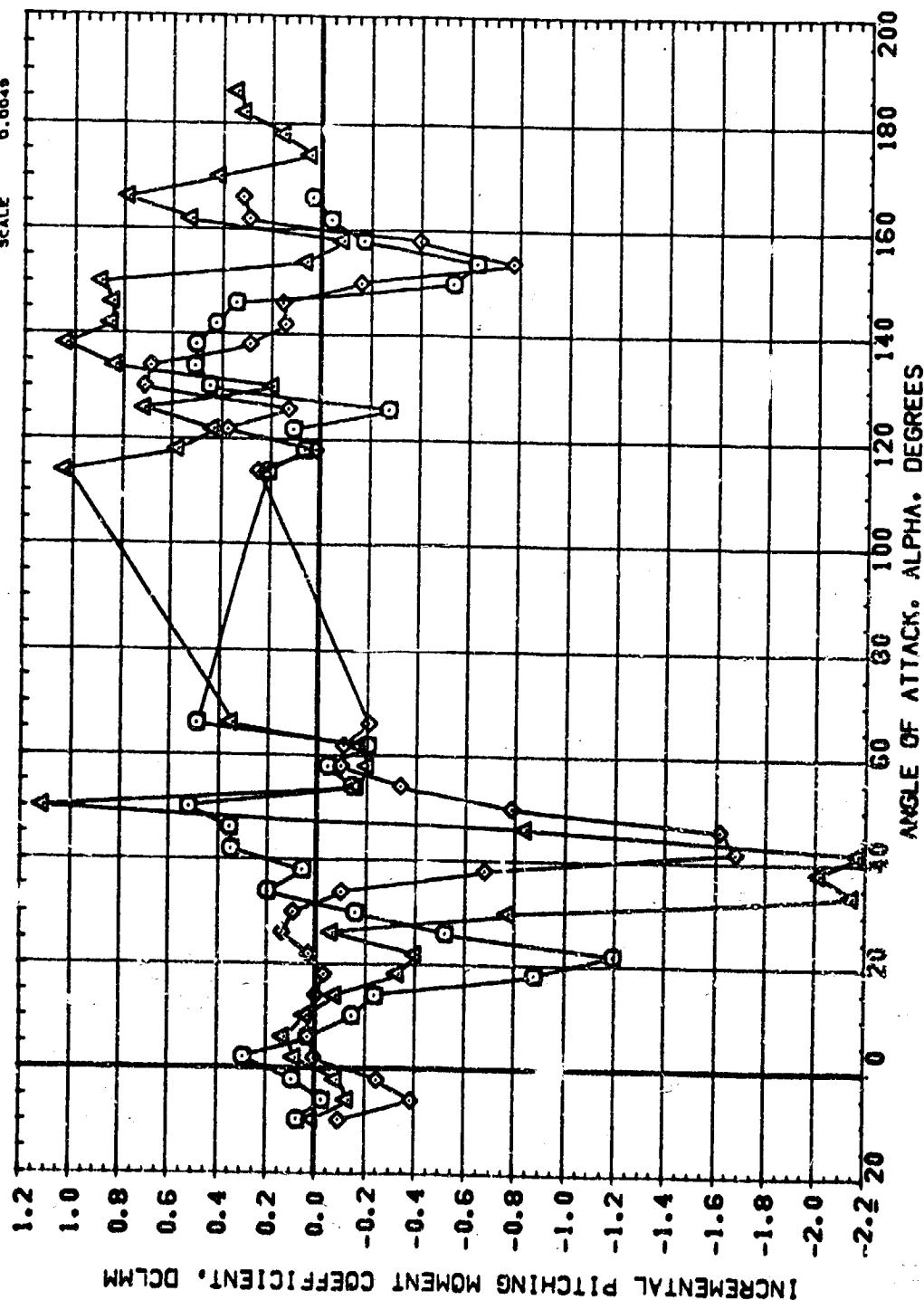
(A)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APTSTR	REFERENCE INFORMATION
(C79101)	WSPC 334 (BALP) PER/SRS (NO GRIT)	0.000	49.000	1.100	1.100	SRFP 0.0030 99.14 INCH
(C79102)	WSPC 334 (BALP) PER/SRS (NO GRIT)	0.000	90.000	1.100	1.100	LRFP 0.0000 1 INCH
(C79103)	WSPC 334 (BALP) PER/SRS (NO GRIT)	0.000	135.000	1.100	1.100	BRFP 0.0000 1 INCH
						YMRP 0.0010 1 INCH
						ZMRP 0.0000 1 INCH
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(A) MACH = 1.20

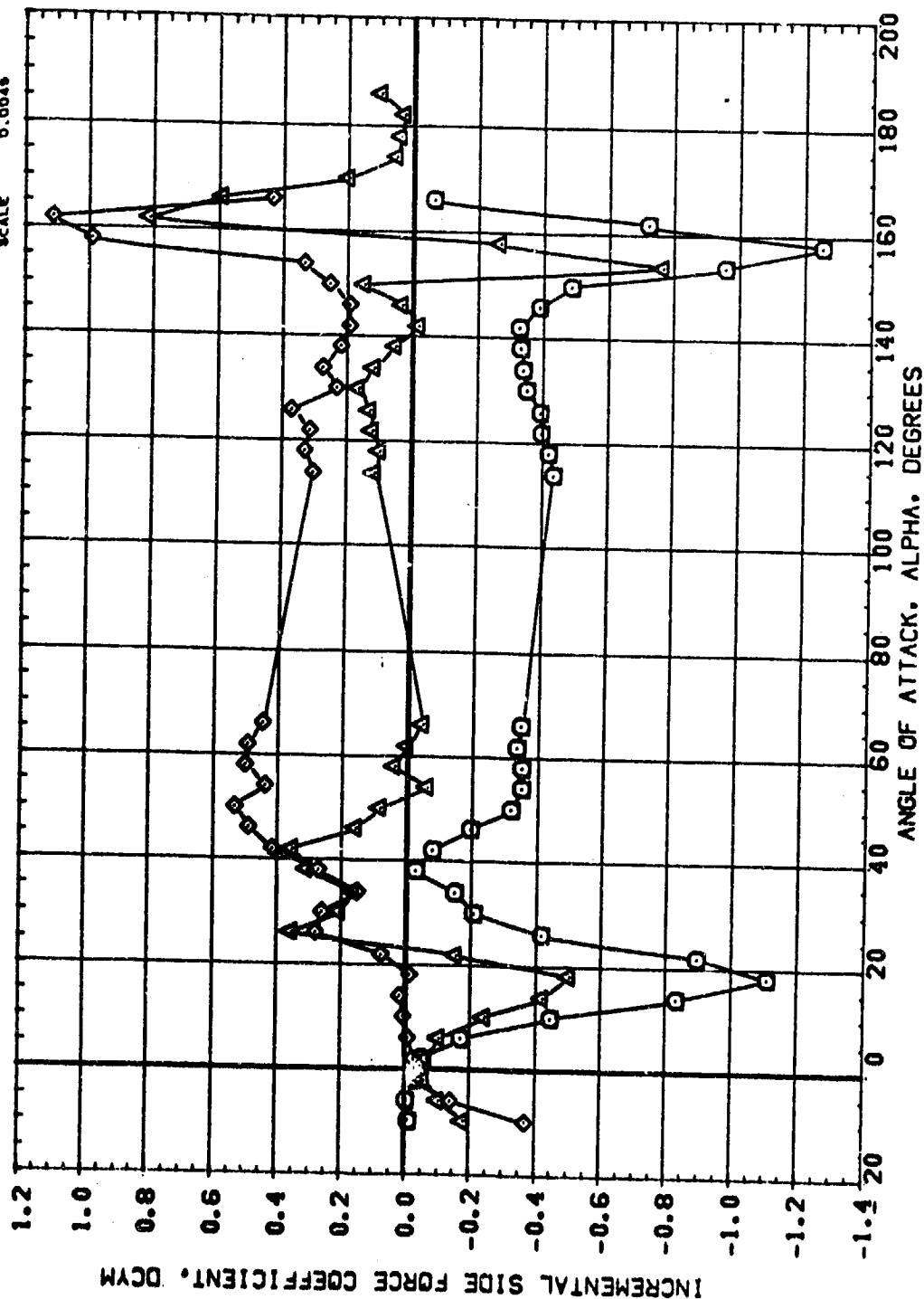
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PHOSTK	APTSTK	REFERENCE INFORMATION
(C79100)	WPC 324 (3A1P) PRS/SRS (NO GATP)	0.000	45.000	1.100	1.100	SREF 0.5030 36.1M.
(C79101)	WPC 324 (3A1P) PRS/SRS (NO GATP)	0.000	90.000	1.100	1.100	LREF 0.8000 1MCH
(C79110)	WPC 324 (3A1P) PRS/SRS (NO GATP)	0.000	135.000	1.100	1.100	BREF 0.8000 1MCH
						YMRP 6.0810 1MCH
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A) MACH = 1.20

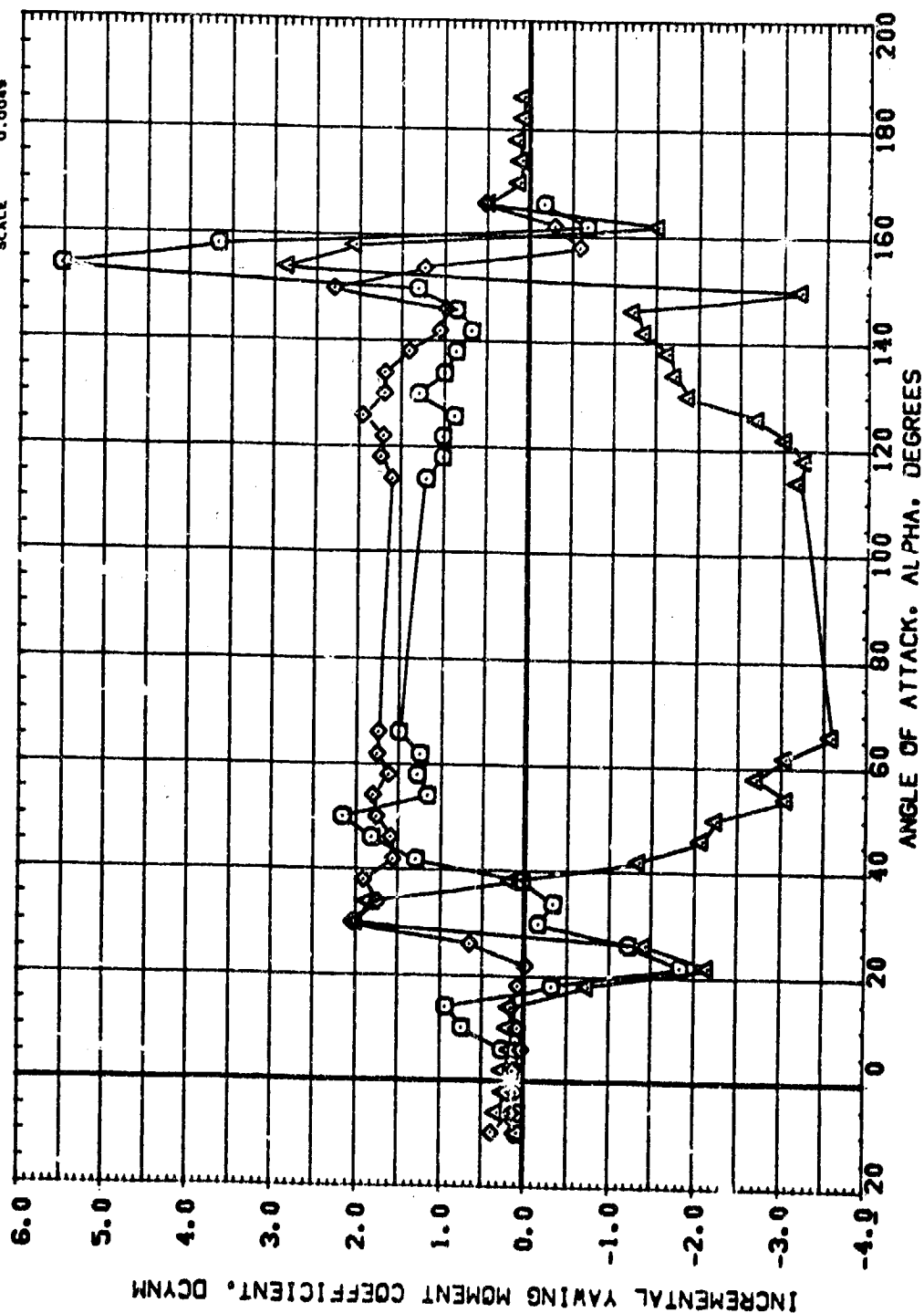
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTR	APTSTR	REFERENCE INFORMATION
(CP9101)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	45.000	1.100	1.100	SRFP 0.7030 39.1M
(CP9102)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LRFP 0.8000 1MCH
(CP9103)	NSPC 334 (3A1P) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	SRFP 0.8000 1MCH
						XRFP 8.0810 1MCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A)MACH = 1.20

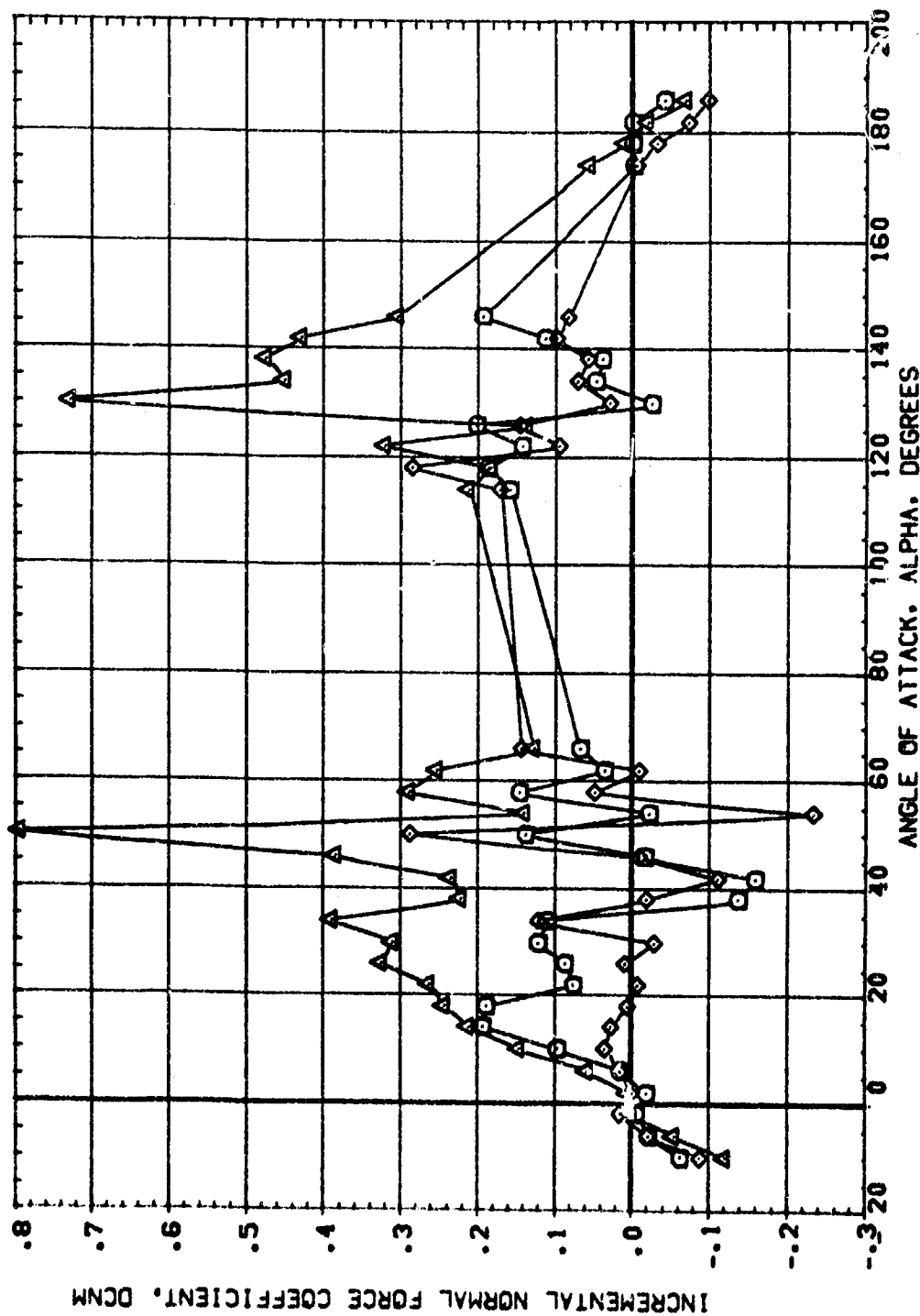
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		DELPHI		P408K		AP78K		REFERENCE INFORMATION	
IC79108	○	WSPC 334 (BA1P)	PER/SRS (NO CRIT)	0.000	45.000	1.100	1.100	0.5030	36.1M.	SREP	0.5030	INCH	
IC79109	◇	WSPC 334 (BA1P)	PER/SRS (NO CRIT)	0.000	90.000	1.100	1.100	0.5000	INCH	LREP	0.5000	INCH	
IC79110	◇	WSPC 334 (BA1P)	PER/SRS (NO CRIT)	0.000	135.000	1.100	1.100	0.5000	INCH	BREP	0.5000	INCH	
								YMRP	6.0610	INCH			
								ZMRP	0.0000				
								SCALE	0.0049				



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A)MACH = 1.20

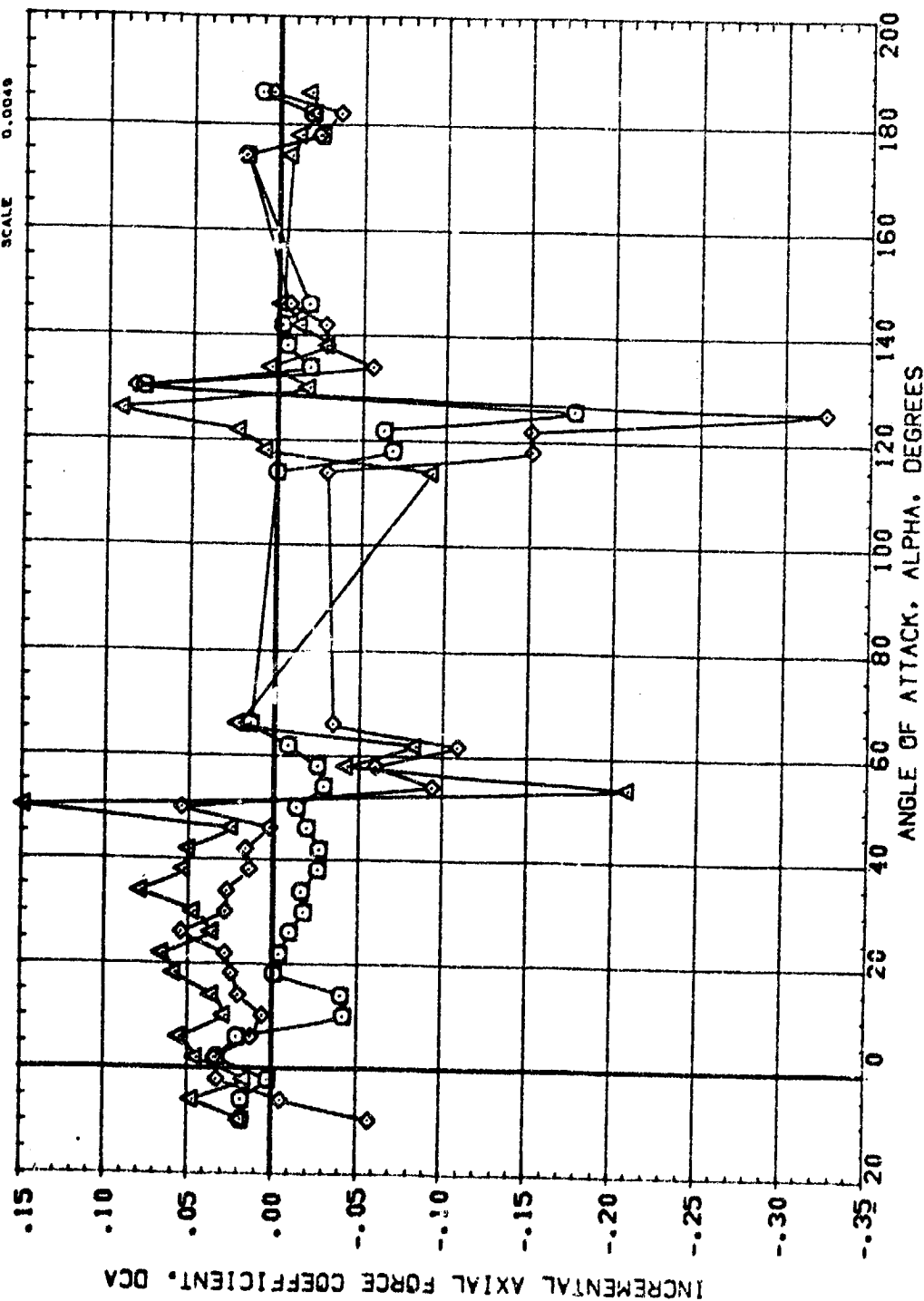
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTR	APTSTR	REFERENCE INFORMATION
(079105)	WSPC 334 (3ALP) PWR/SRS (NO 8217)	0.000	45.000	1.100	1.100	SREF 0.5030 36-IN.
(079106)	WSPC 334 (3ALP) PWR/SRS (NO 8217)	0.000	90.000	1.100	1.100	LREF 0.8000 1-INCH
(079110)	WSPC 334 (3ALP) PWR/SRS (NO 8217)	0.000	135.000	1.100	1.100	BREF 0.8000 1-INCH
						XMRP 8.0810 1-INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

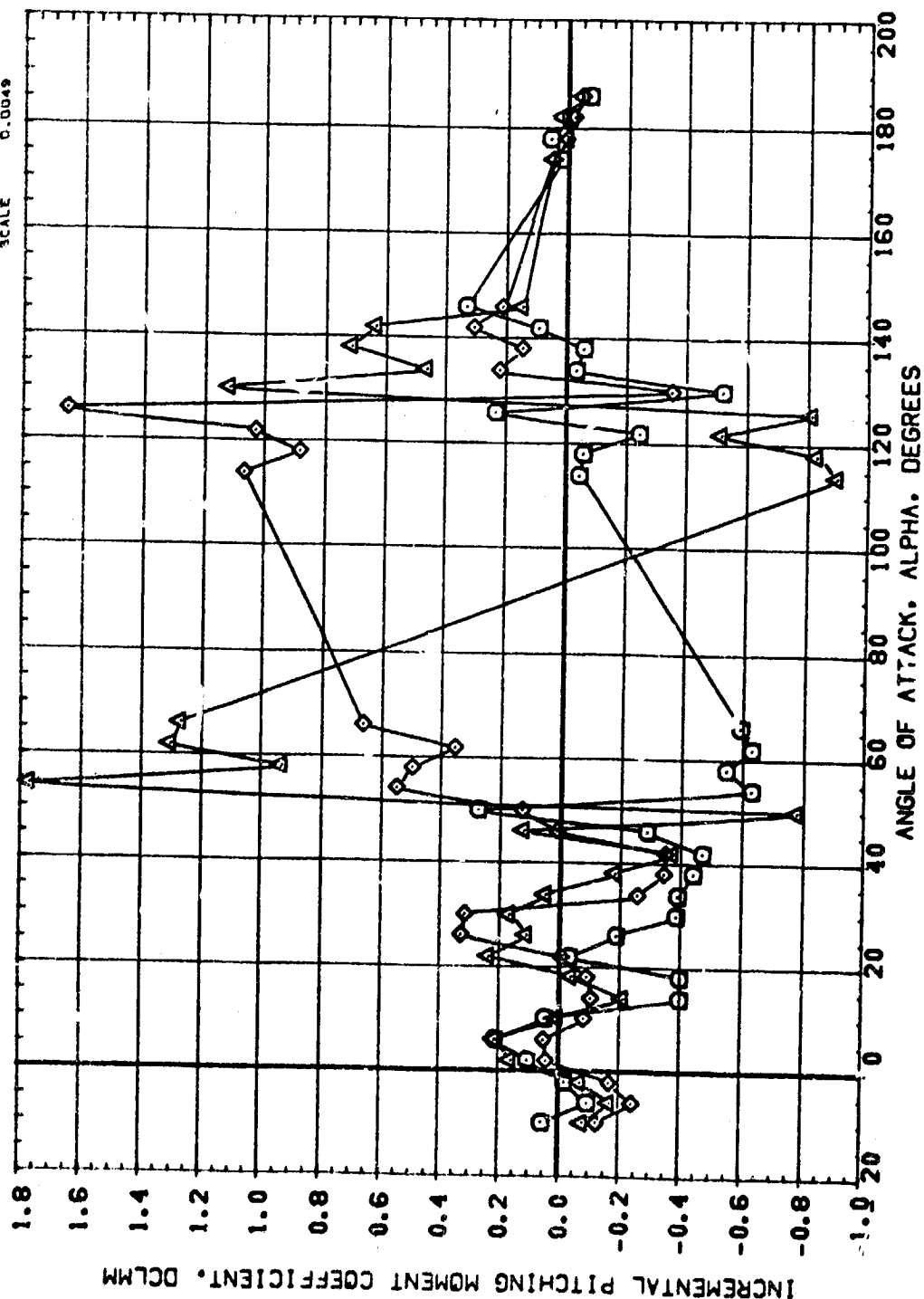
(A)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTR	APTSTR	REFERENCE INFORMATION
(0791001)	NSPC 334 (SALP) PRP/SRB (NO GRIT)	0.000	43.000	1.100	1.100	SREP 0.3030 36.1N
(0791002)	NSPC 334 (SALP) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LREP 0.8000 INCH
(0791003)	NSPC 334 (SALP) PRP/SRB (NO GRIT)	0.000	133.000	1.100	1.100	BREP 0.8000 INCH
						YMRP 0.0010 INCH
						ZMRP 0.0000 INCH
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(A) MACH = 1.96

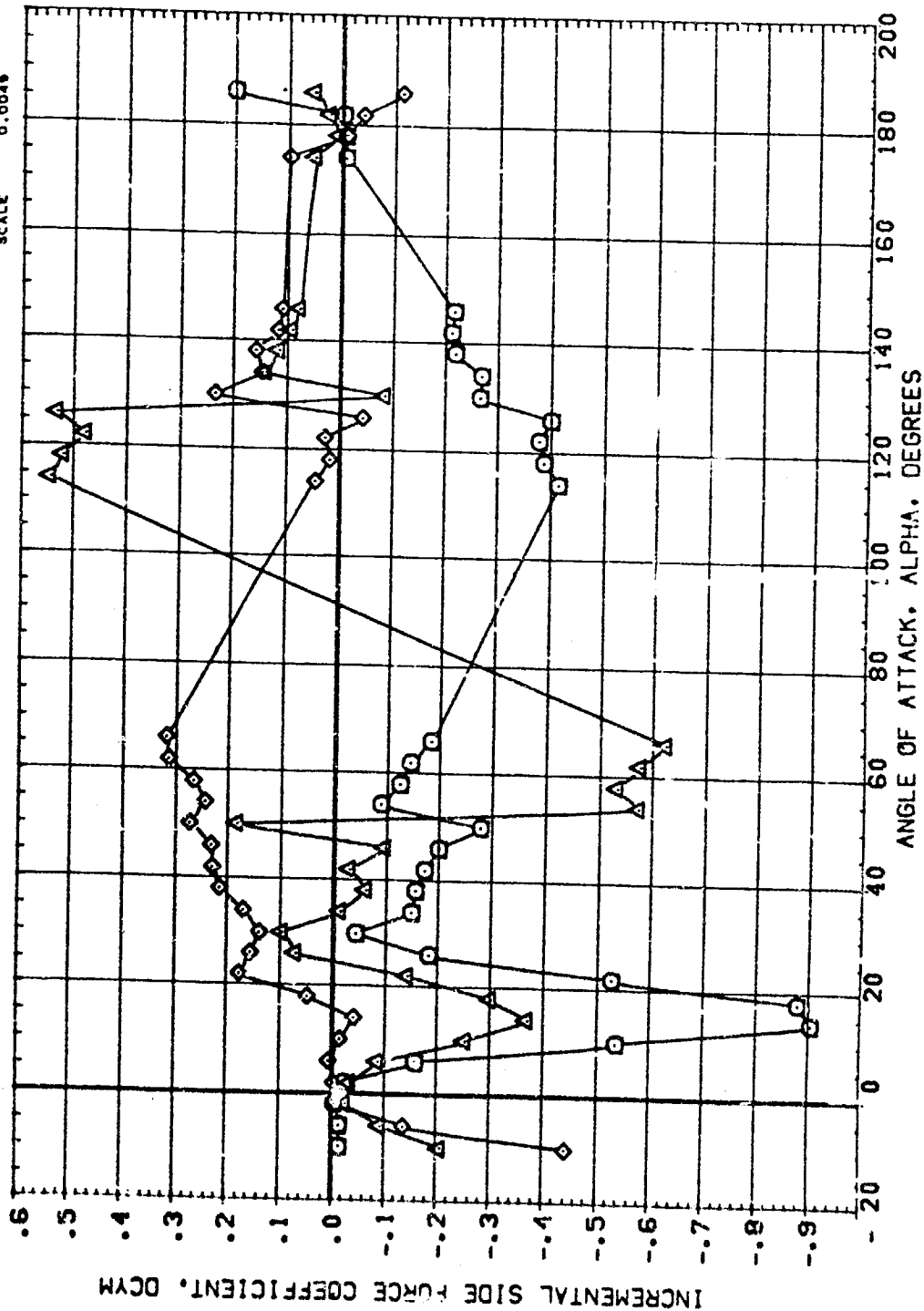
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	F-03TK	APTSTK	REFERENCE INFORMATION
(079108)	WPC 554 (SAIP) PRP/SRB (NO GRIT)	0.000	45.000	1.100	1.100	SREF 0.5050 39.1M.
(079109)	WPC 554 (SAIP) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LREF 0.8000 INCH
(079110)	WPC 554 (SAIP) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	BREF 0.8000 INCH
						XMRP 6.0810 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STROKES ON AERODYNAMIC CHARACTERISTICS

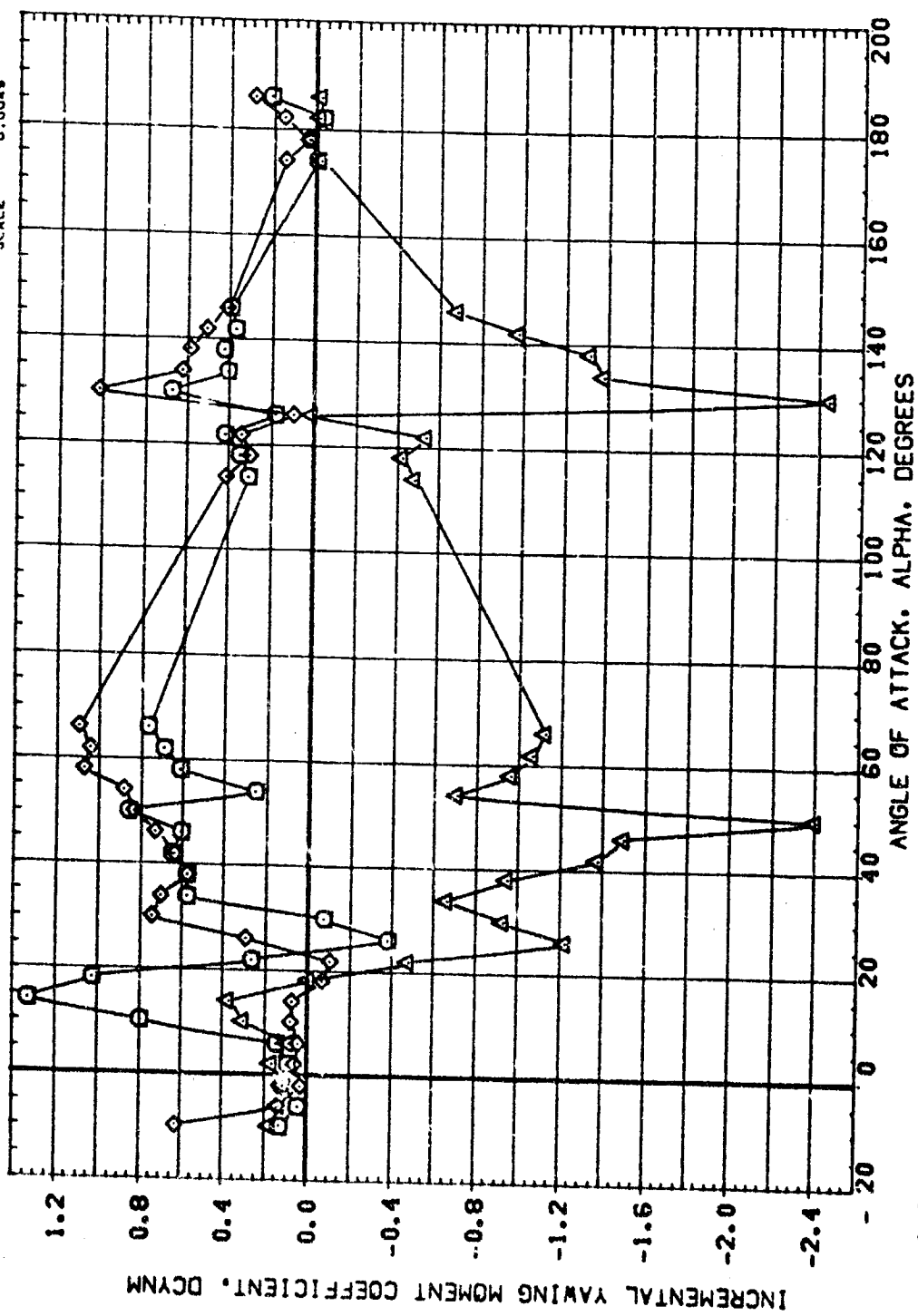
(A)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTH	APTSTK	REFERENCE INFORMATION
(095101)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	SREF 0.5030 SQ. IN.
(095103)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	LREF 0.8000 INCH
(095110)	WSPC 354 (BA1P) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	SREF 0.8000 INCH
						XMRP 6.0810 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(M)MACH = 1.96

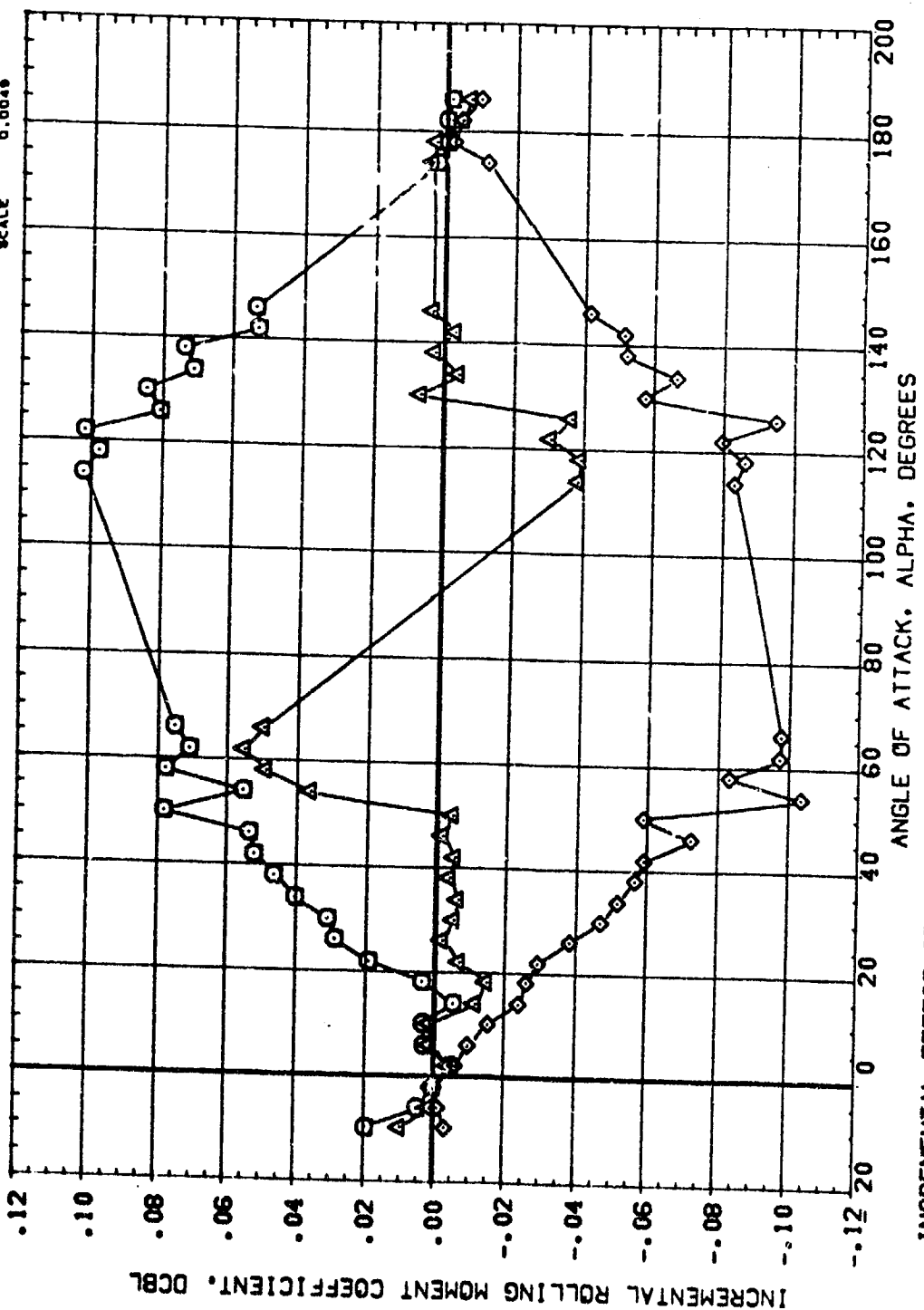
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APTATK	REFERENCE INFORMATION
(079101)	WSPC 554 (BALP) PRR/SRB (NO GRIT)	0.000	45.000	1.100	1.100	SRP 0.5030 INCH
(079102)	WSPC 554 (BALP) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LRP 0.6000 INCH
(079110)	WSPC 554 (BALP) PRR/SRB (NO GRIT)	0.000	135.000	1.100	1.100	SRP 0.6000 INCH
						THRP 6.0810 INCH
						ZHRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A)MACH = 1.96

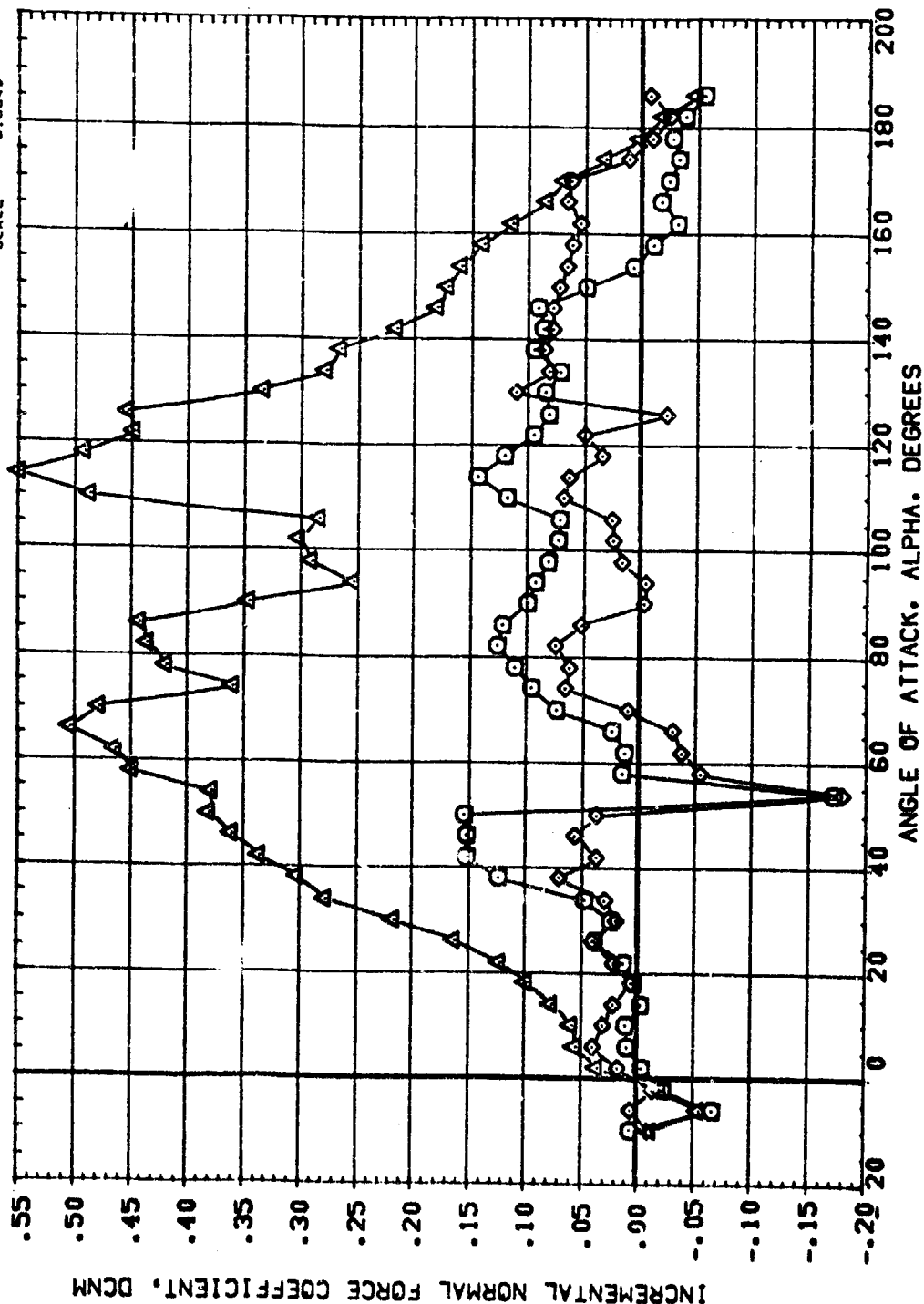
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PLASTK	APTSTK	REFERENCE INFORMATION
(079104)	MS/C 554 (BALP) PRR/SRB (NO GRIT)	0.000	45.000	1.100	1.100	BREF 0.5030 56.1M
(079105)	MS/C 554 (BALP) PRR/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LREF 0.8000 1NCH
(079110)	MS/C 554 (BALP) PRR/SRB (NO GRIT)	0.000	135.000	1.100	1.100	BREF 0.8000 1NCH
						XHRP 6.0810 1NCH
						YHRP 0.0000
						ZHRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
 (A) MACH = 1.96
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DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E79108) MSFC 554 (UAIPT) PRR/SRS (NO CRIT)
 (E79109) MSFC 554 (SAIPT) PRR/SRS (NO CRIT)
 (E79110) MSFC 554 (SAIPT) PRR/SRS (NO CRIT)

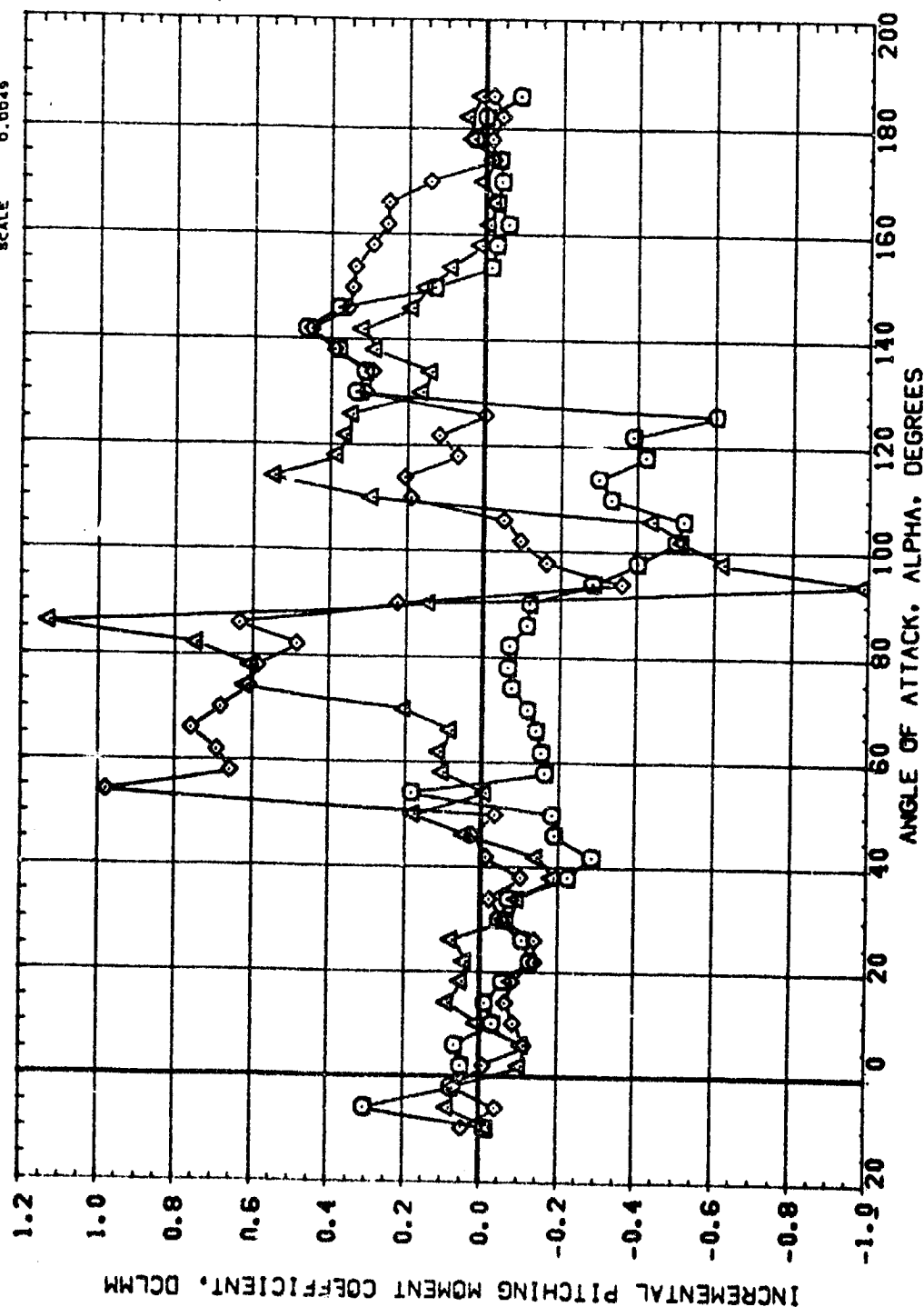
BETA DELPHI PNO3TK APT3TK REFERENCE INFORMATION
 0.000 45.000 1.100 1.100 SREF 0.5030 99.1M.
 0.000 90.000 1.100 1.100 LREF 0.8000 1MCH
 0.000 135.000 1.100 1.100 XREF 0.8000 1MCH
 YMRP 6.0810 1MCH
 ZMRP 0.0000
 SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A) MACH = 3.48

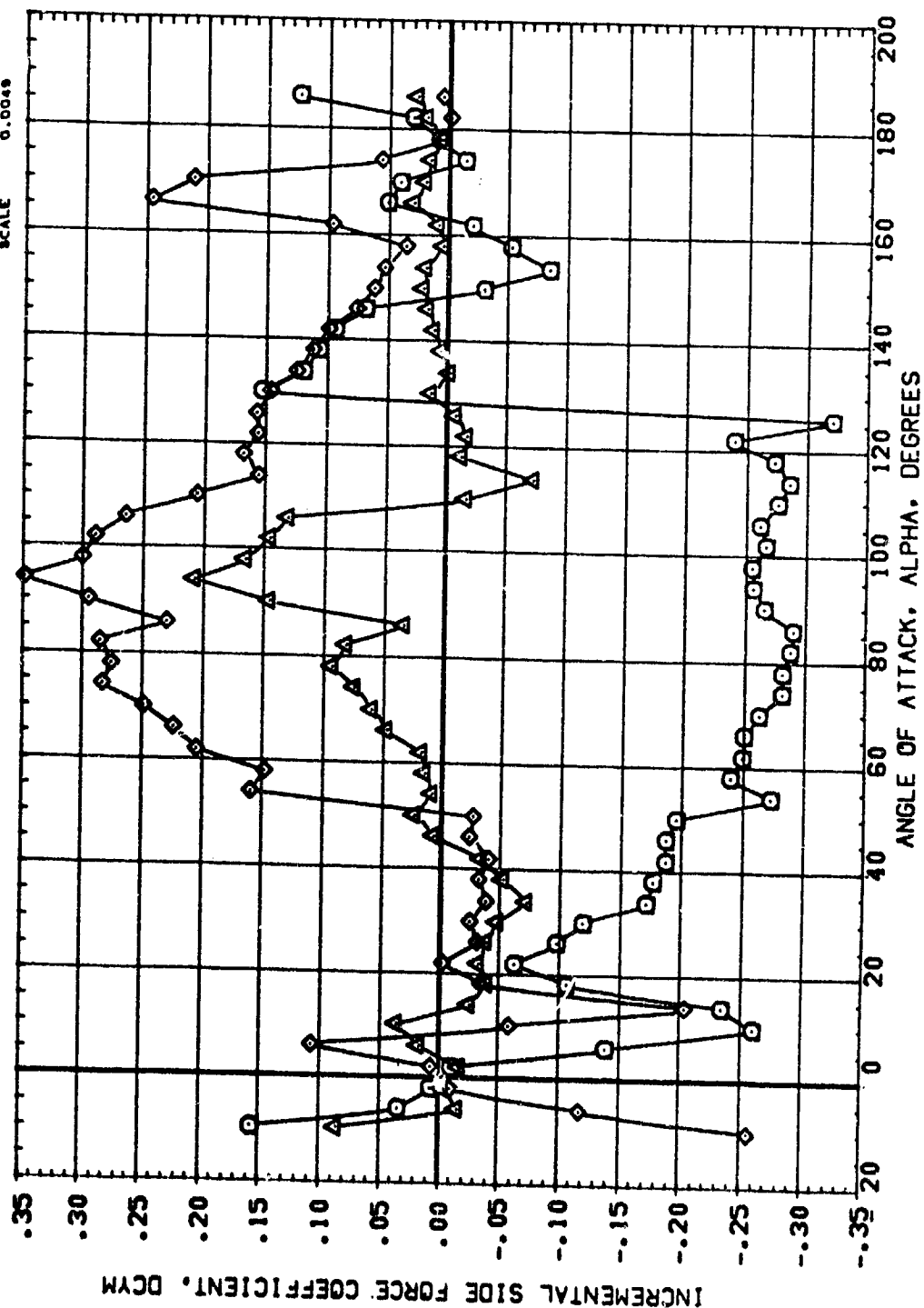
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APTSTK	REFERENCE INFORMATION
(E79105)	WSPC 334 (BA1P) PRP/SRB (NO GRIT)	0.000	45.000	1.100	1.100	SREP 0.3030 88.1M.
(E79105)	WSPC 334 (BA1P) PRP/SRB (NO GRIT)	0.000	90.000	1.100	1.100	LREP 0.8000 1MCH
(E79110)	WSPC 334 (BA1P) PRP/SRB (NO GRIT)	0.000	135.000	1.100	1.100	DREP 0.8000 1MCH
						MRP 0.0810 1MCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

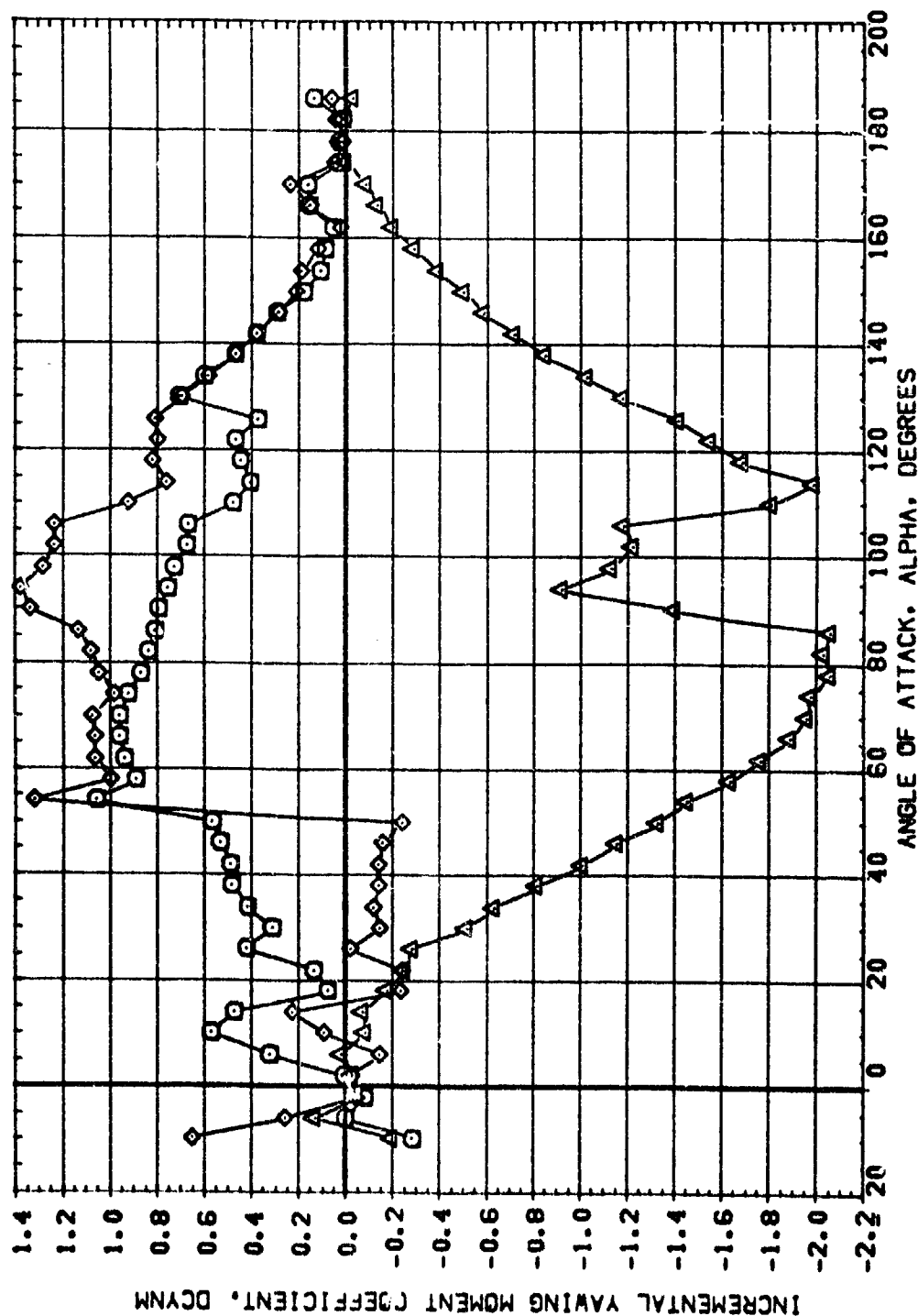
(A)MACH = 3.48

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APTSTK	REFERENCE INFORMATION
(E79109)	NSPC 334 (BALP) PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	SREP 0.5030 88.1N.
(E79109)	NSPC 334 (BALP) PRR/SRS (NO GRIT)	0.000	90.000	1.100	1.100	LREP 0.8000 1NCH
(E79110)	NSPC 334 (BALP) PRR/SRS (NO GRIT)	0.000	135.000	1.100	1.100	BREP 0.8000 1NCH
						XMRP 0.0010 1NCH
						ZMRP 0.0000 1NCH
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(A)MACH = 3.48

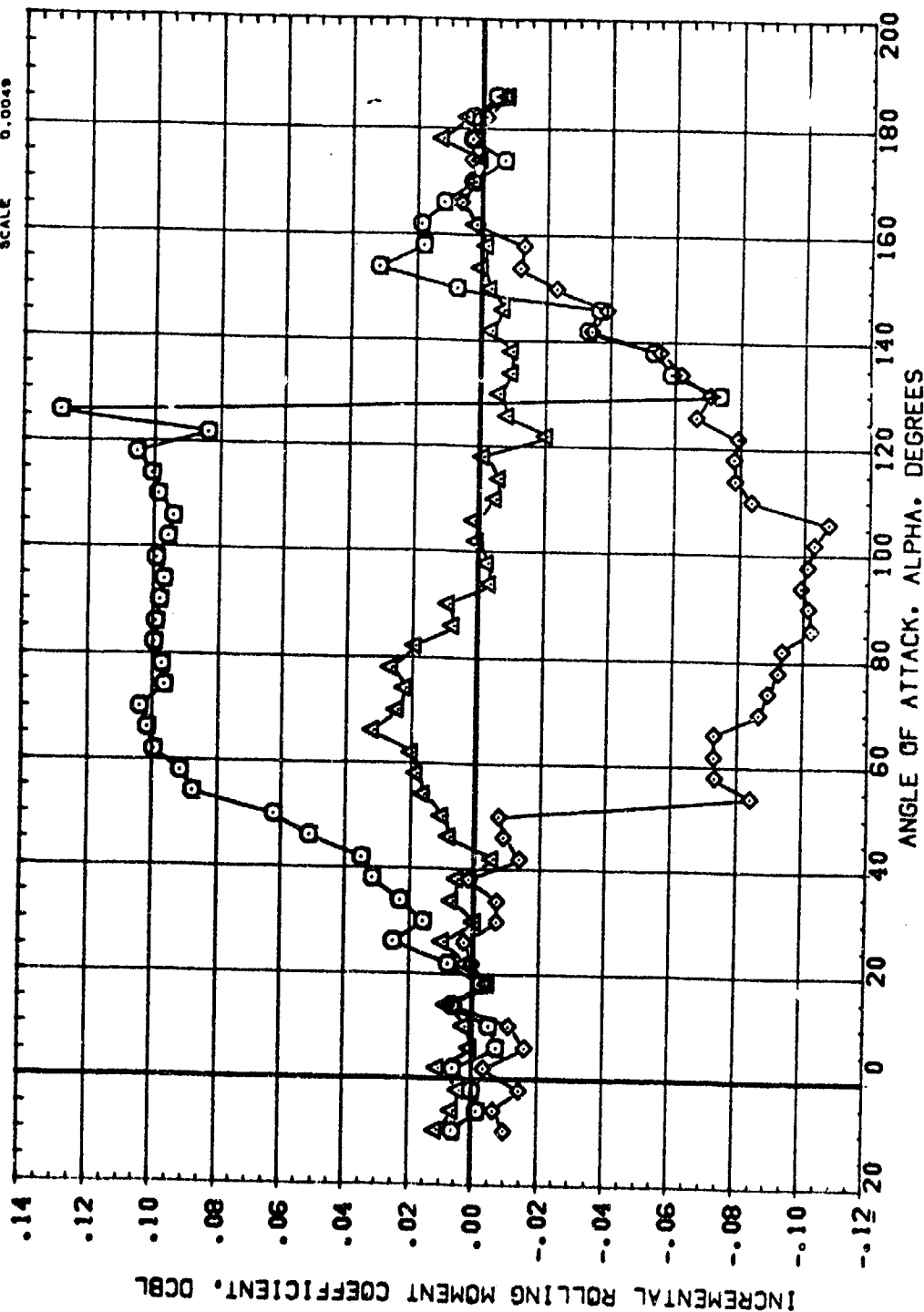
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMSTR	APTSTR	REFERENCE INFORMATION
(E79109)	NSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	45.000	1.100	1.100	SRP 0.5030 80.1M.
(E79109)	NSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	90.000	1.100	1.100	LRP 0.8000 1MCH
(E79110)	NSPC 334 (3A1P) PRP/SRS (NO GRIT)	0.000	135.000	1.100	1.100	SRP 0.8000 1MCH
						MRP 0.0810 1MCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
(A)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E79103) WSPC 334 (BA1P) PER/SRS (NO GRIT)
 (E79104) WSPC 334 (BA1P) PER/SRS (NO GRIT)
 (E79105) WSPC 334 (BA1P) PER/SRS (NO GRIT)

BETA DELPHI P/DSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.100 1.100 SREF 0.3030 36.1M.
 0.000 90.000 1.100 1.100 LREF 0.6000 INCH
 0.000 135.000 1.100 1.100 XMRP 6.0000 INCH
 YMRP 6.0610 INCH
 ZMRP 0.0000
 SCALE 0.0049

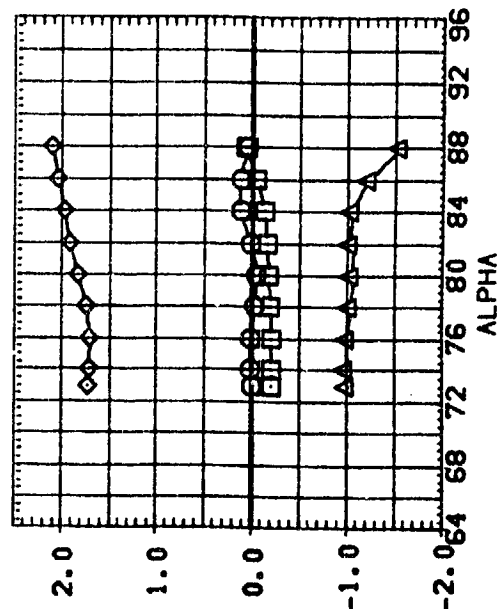
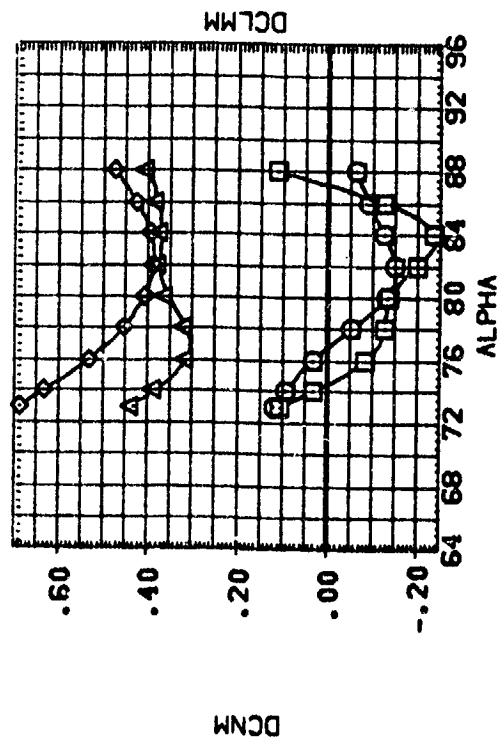
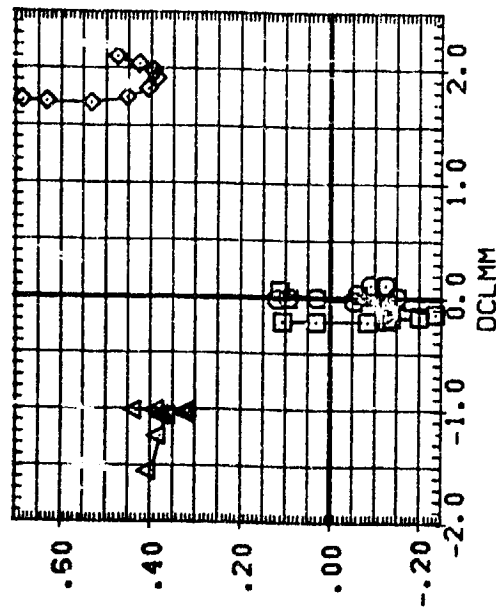
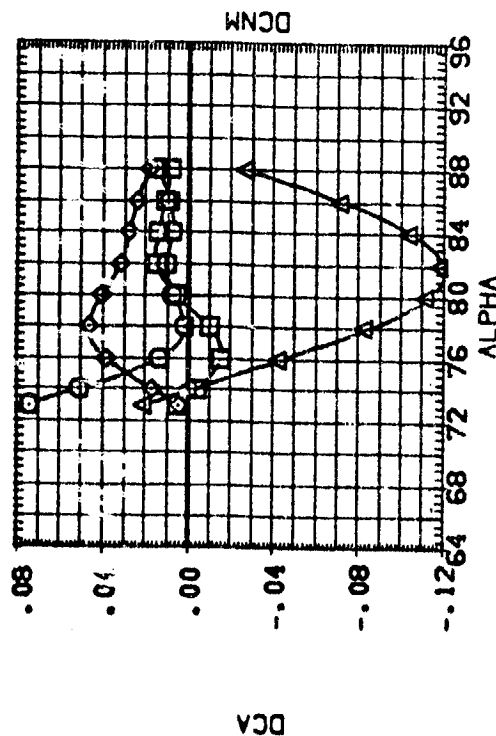


INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(A)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CPSP2E) HSPC 554 (BAIP) PRP/SRB (NO GRIT)
 (CPSP4E) HSPC 554 (BAIP) PRP/SRB (NO GRIT)
 (CPSP6E) HSPC 554 (BAIP) PRP/SRB (NO GRIT)
 (CPSP8E) HSPC 554 (BAIP) PRP/SRB (NO GRIT)

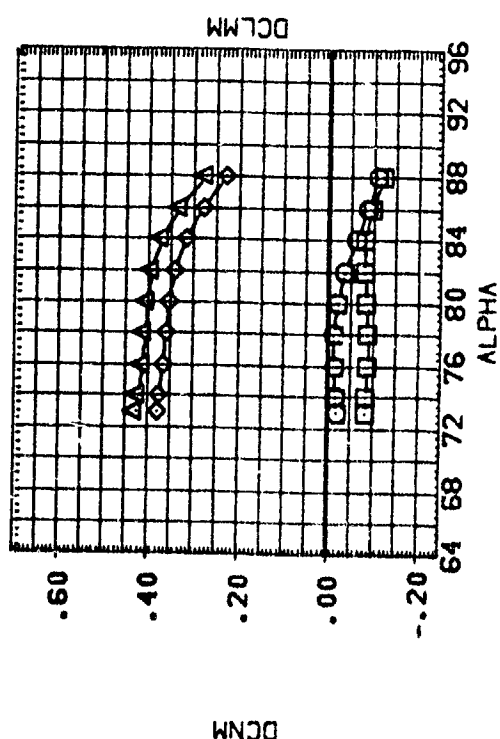
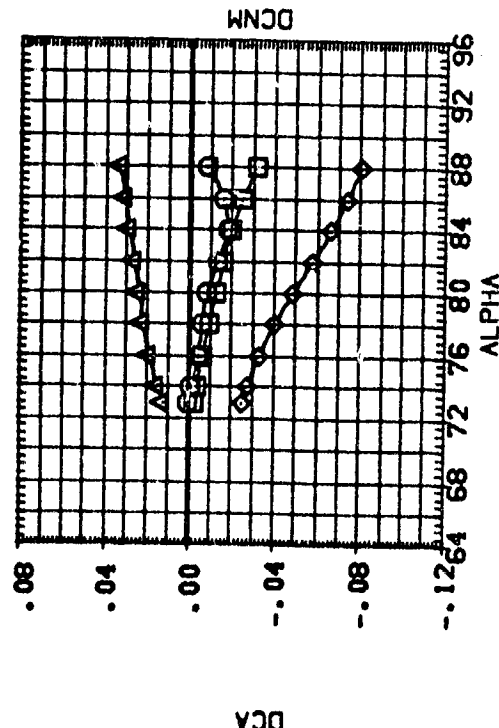
BETA DELP-II PWO3TK APT3TK REFERENCE INFORMATION
 0.000 22.300 1.100 1.100 SREF 0.5030 88.1IN.
 0.000 67.300 1.100 1.100 LREF 0.8000 INCH
 0.000 112.300 1.100 1.100 BREF 0.8000 INCH
 0.000 157.500 1.100 1.100 YMRP 6.0810 INCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS
 (A)MACH = .90

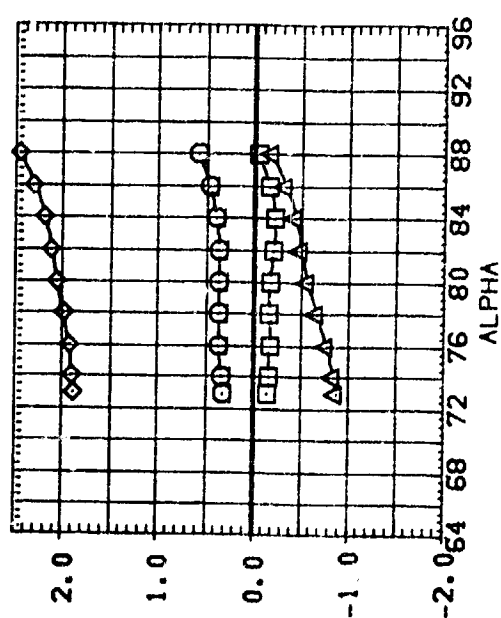
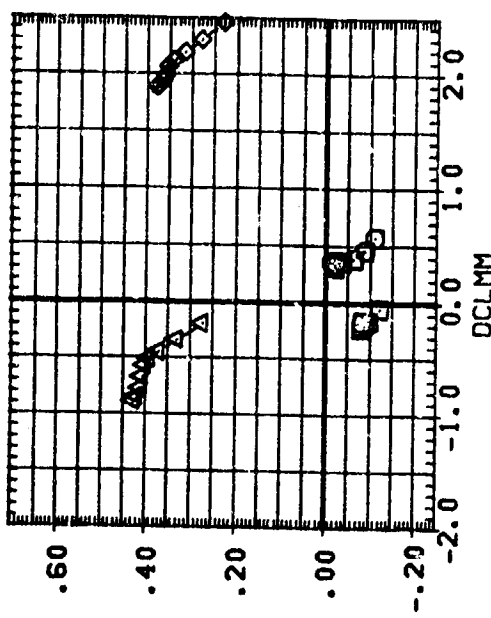
DATA SET SYMBOL CONFIGURATION DESCRIPTION





(CP92E)	NSPC 334 (3A1P)	MR/3RB (NO GRIT)
(CP92E)	NSPC 334 (3A1P)	MR/3RB (NO GRIT)
(CP92E)	NSPC 334 (3A1P)	MR/3RB (NO GRIT)
(CP92E)	NSPC 334 (3A1P)	MR/3RB (NO GRIT)



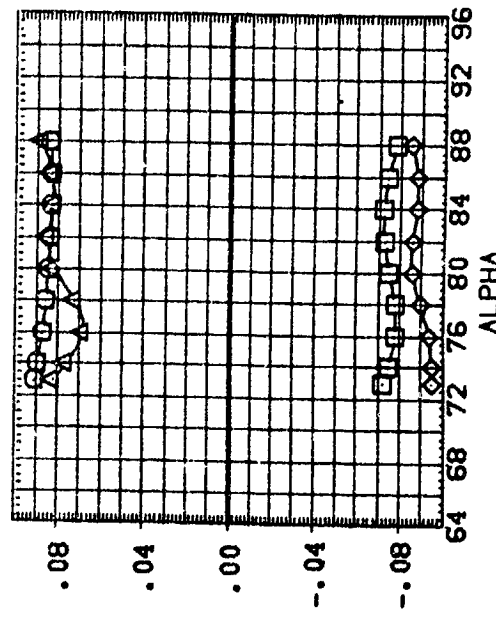
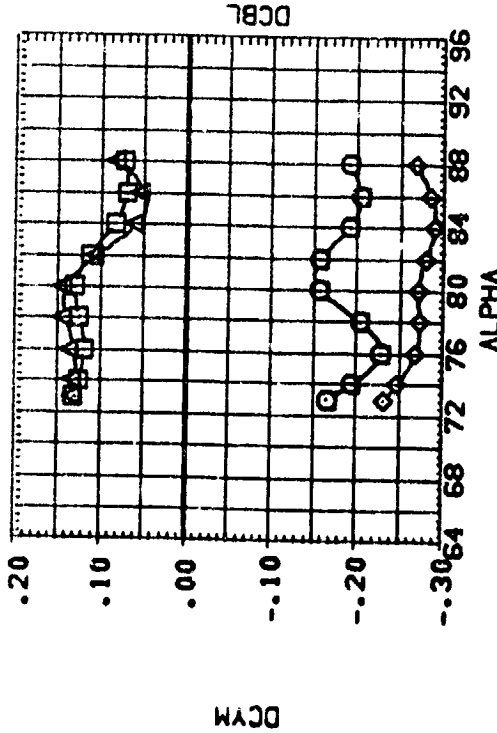
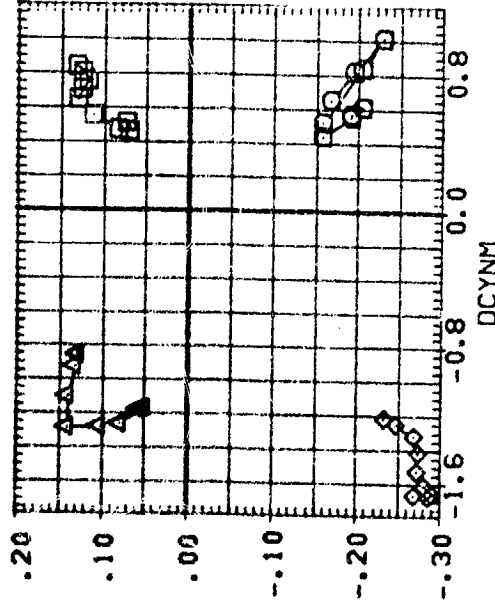
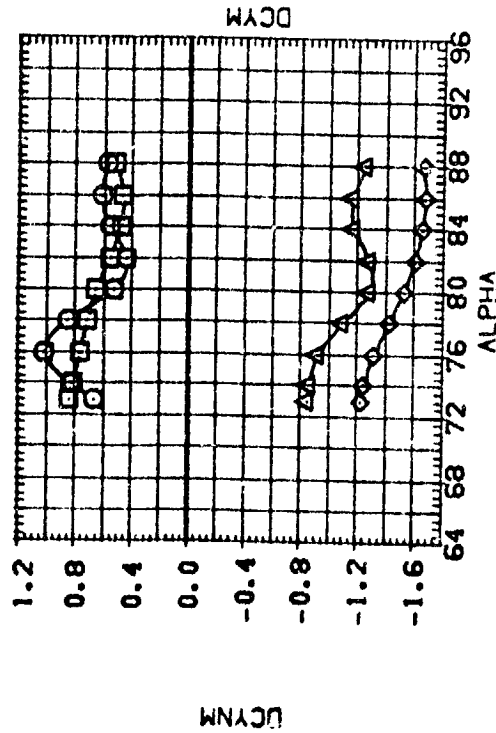
BETA DELPHI PMOSTK APTSTK REFERENCE INFORMATION

0.000	22.500	1.100	1.100	SREF	0.5030	36.1M.
0.000	67.500	1.100	1.100	LREF	0.8000	1NCH
0.000	112.500	1.100	1.100	BREF	0.8000	1NCH
0.000	157.500	1.100	1.100	ZMRP	0.0810	1NCH
				YMRP	0.0000	
				ZMRP	0.0000	
				SCALE	0.0049	



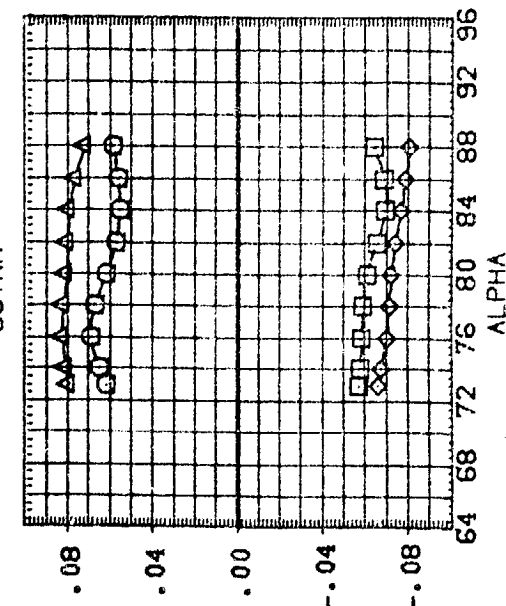
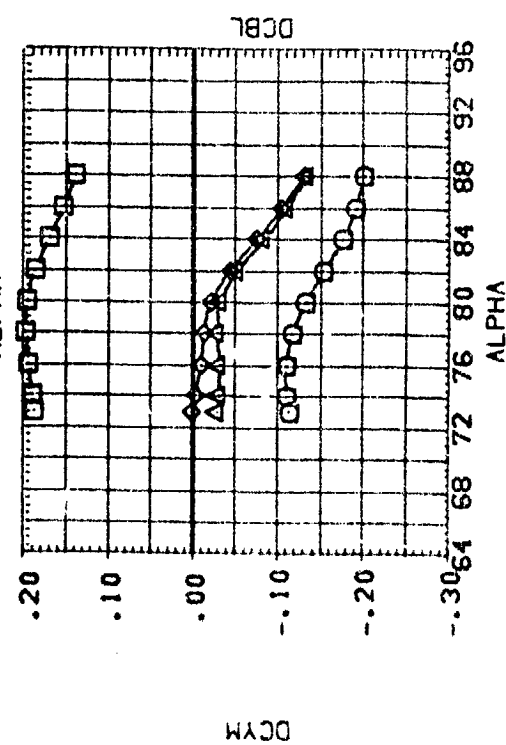
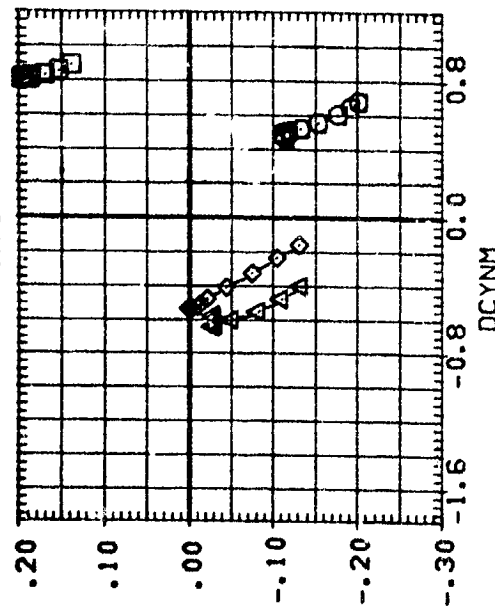
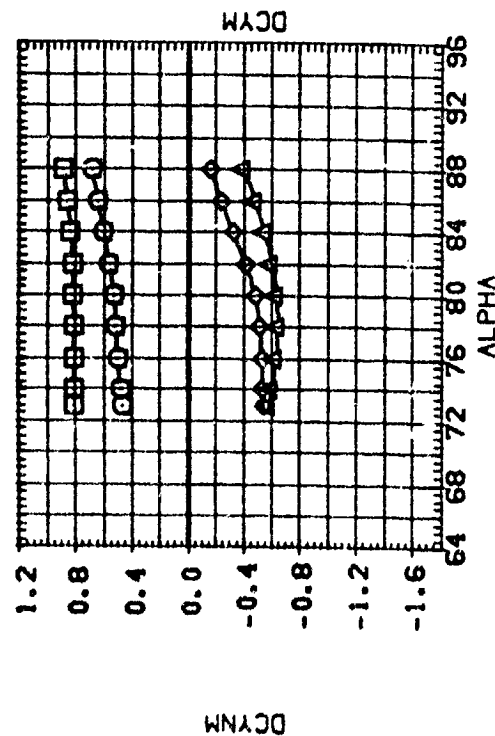
DATA KEY SYMBOL CONFIGURATION DESCRIPTION
 (C75P2E)  MSFC 534 (BAIP) PRP/SRB (NO GRIT)
 (C75P4E)  MSFC 534 (BAIP) PRP/SRB (NO GRIT)
 (C75P6E)  MSFC 534 (BAIP) PRP/SRB (NO GRIT)
 (C75P8E)  MSFC 534 (BAIP) PRP/SRB (NO GRIT)

BETA DELPHI PMOSTK APTSTR REFERENCE INFORMATION
 0.000 25.500 1.100 1.100 SREF 0.5030 59.1M.
 0.000 87.500 1.100 1.100 LREF 0.8000 1NCH
 0.000 112.500 1.100 1.100 BREF 0.8000 1NCH
 0.000 137.500 1.100 1.100 YMRP 0.0810 1NCH
 ZMRP 0.0000
 SCALE 0.0049



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C75P22) NSPC 534 (SA1P) PRR/SRB (NO GRIT)
 (C75P42) NSPC 534 (SA1P) PRR/SRB (NO GRIT)
 (C75P62) NSPC 534 (SA1P) PRR/SRB (NO GRIT)
 (C75P82) NSPC 534 (SA1P) PRR/SRB (NO GRIT)

BETA DELPHI PWOSTK APTSTK REFERENCE INFORMATION
 0.000 28.500 1.100 1.100 0.5030 56.1N.
 0.000 87.500 1.100 1.100 0.8000 INCH
 0.000 112.500 1.100 1.100 0.8000 INCH
 0.000 137.500 1.100 1.100 4.0810 INCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



INCREMENTAL EFFECT OF RADIAL LOCATION OF STRAKES ON AERODYNAMIC CHARACTERISTICS

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(179031E) WSPC 334 (3ALP) PRR/SBS (NO CRIT)

(179032E) WSPC 334 (3ALP) PRR/SBS (NO CRIT)

(179033E) WSPC 334 (3ALP) PRR/SBS (NO CRIT)

(179034E) WSPC 334 (3ALP) PRR/SBS (NO CRIT)

BETA PHI PWOATR APTSTR REFERENCE INFORMATION

0.000 0.000 1.200 SREF 0.5030 92.1N

0.000 45.000 1.200 LREF 0.8000 1NCH

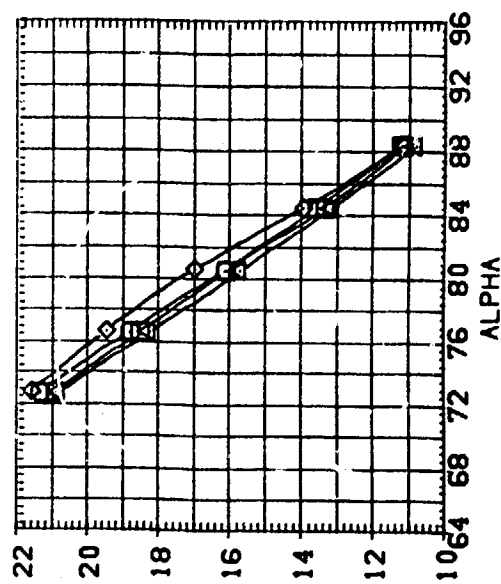
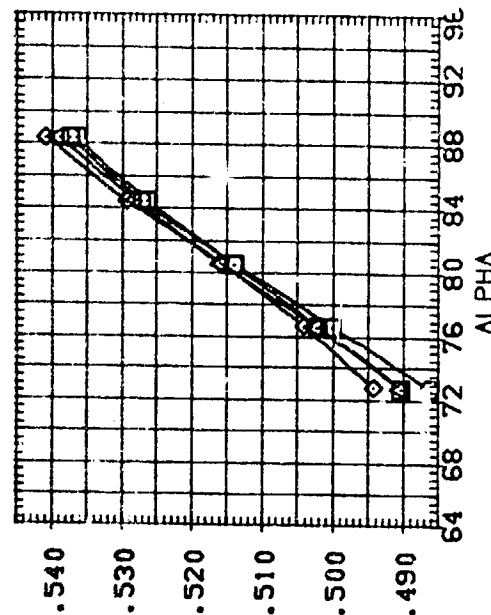
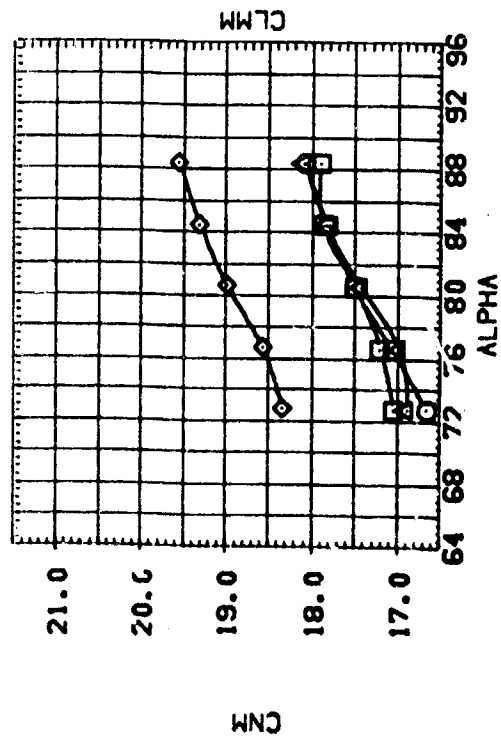
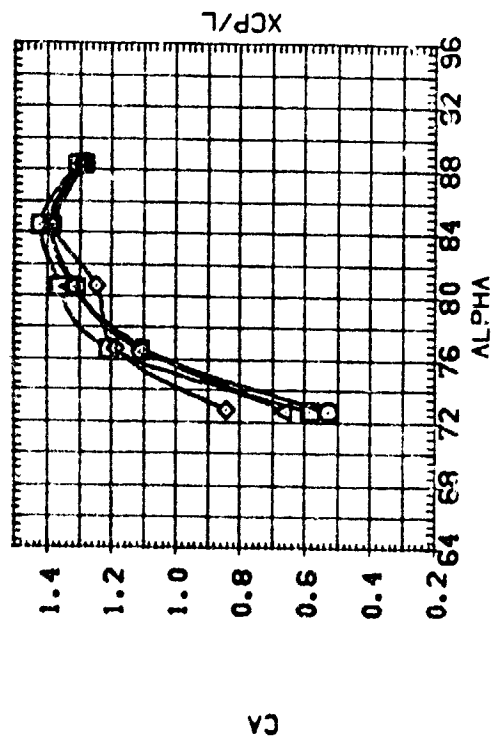
0.010 90.000 1.200 BREF 0.8000 1NCH

0.003 135.000 1.200 XMRP 6.0810 1NCH

0.000 0.000 0.000 YMRP 0.0000

0.000 0.000 0.000 ZMRP 0.0000

0.000 0.000 0.000 SCALE 0.0049

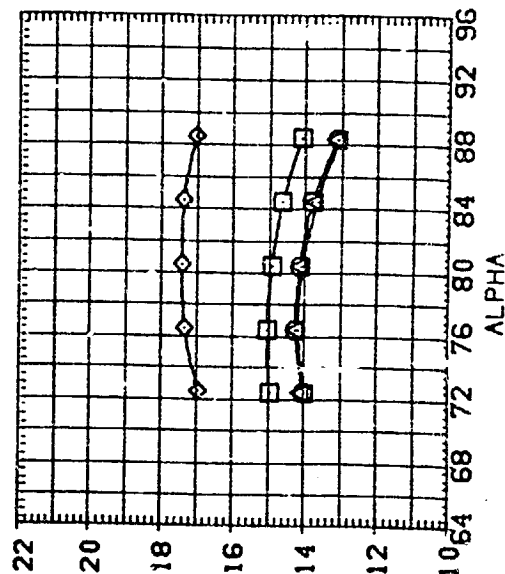
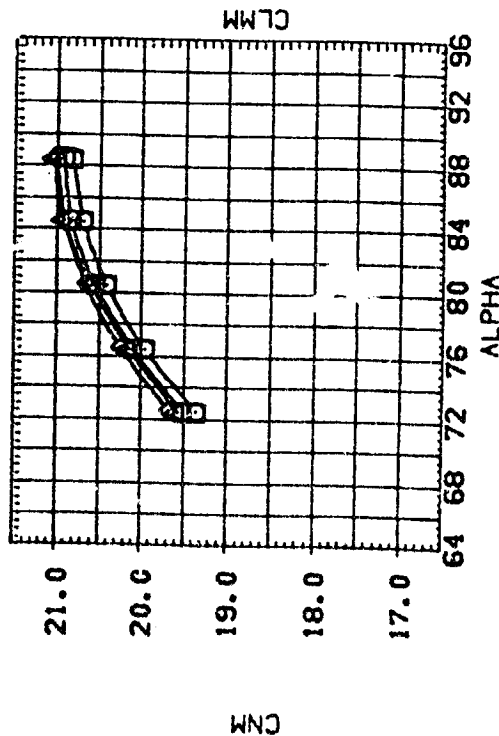
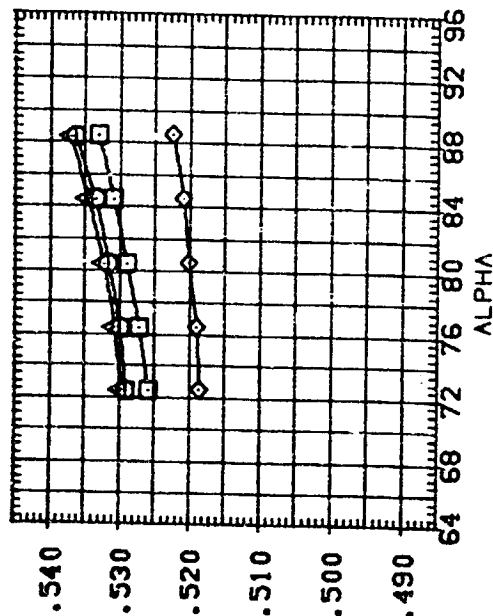
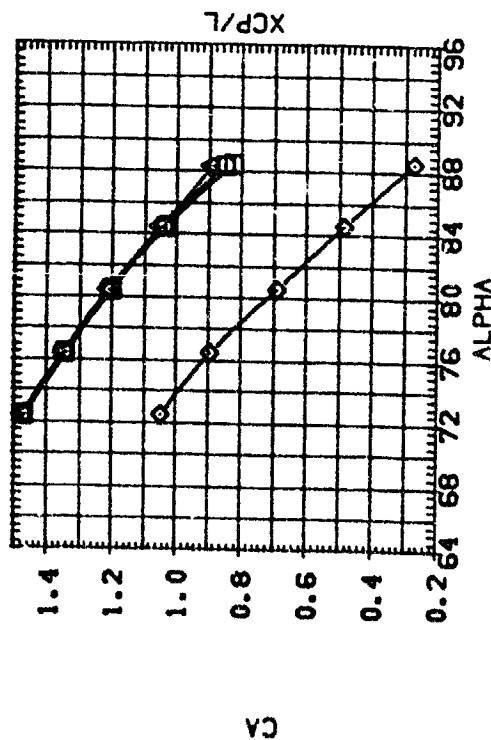


STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES. 1 FWD AND 1 AFT

(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P79C12) WSPC 354 (SALP) PRP/RSB (NO CRIT)
 (C79C32) WSPC 354 (SALP) PRP/RSB (NO CRIT)
 (C79C32) WSPC 354 (SALP) PRP/RSB (NO CRIT)
 (C79C32) WSPC 354 (SALP) PRP/RSB (NO CRIT)

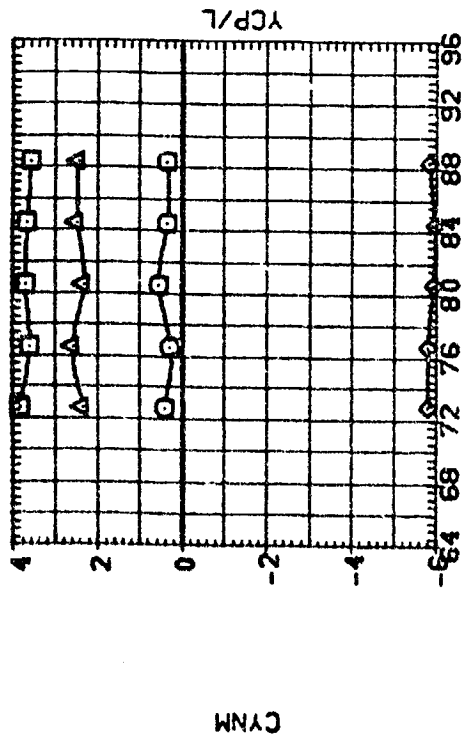
BETA PHI PWOBTX APTSTX REFERENCE INFORMATION
 0.000 0.000 1.200 1.200 SRFP 0.3030 30.1N.
 0.000 45.000 1.200 1.200 LRFP 0.8000 1NCH
 0.000 90.000 1.200 1.200 GRFP 0.8000 1NCH
 0.000 135.000 1.200 1.200 XMRP 8.0810 1NCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



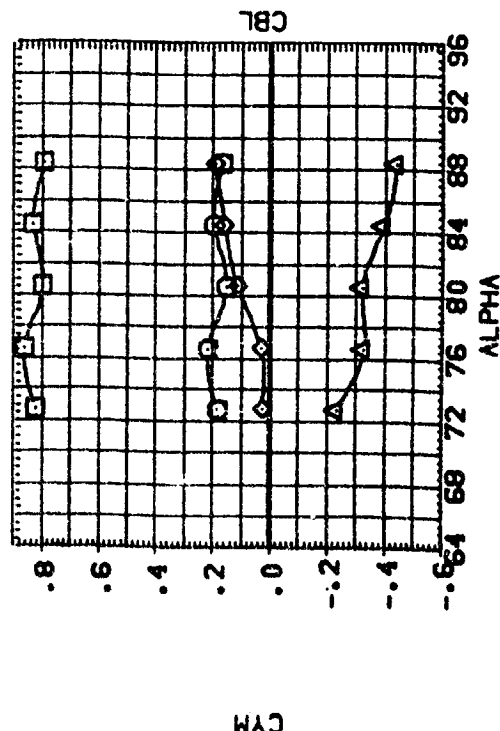
STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT
 (B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (79631E) NSPC 554 (SA1P) PRR/SRB (NO GRIT)
 (79632E) NSPC 554 (SA1P) PRR/SRB (NO GRIT)
 (79633E) NSPC 554 (SA1P) PRR/SRB (NO GRIT)
 (79634E) NSPC 554 (SA1P) PRR/SRB (NO GRIT)

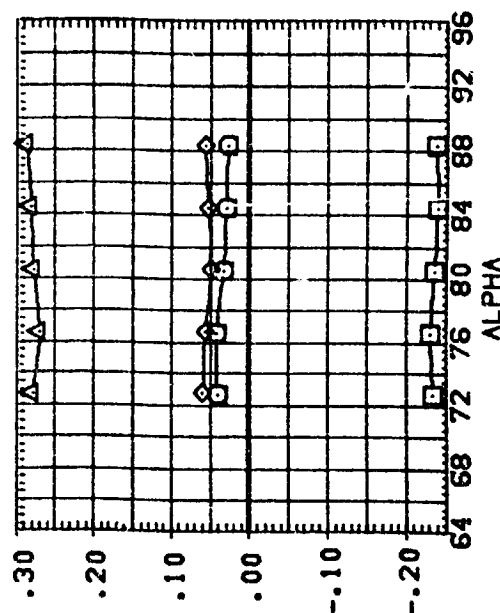
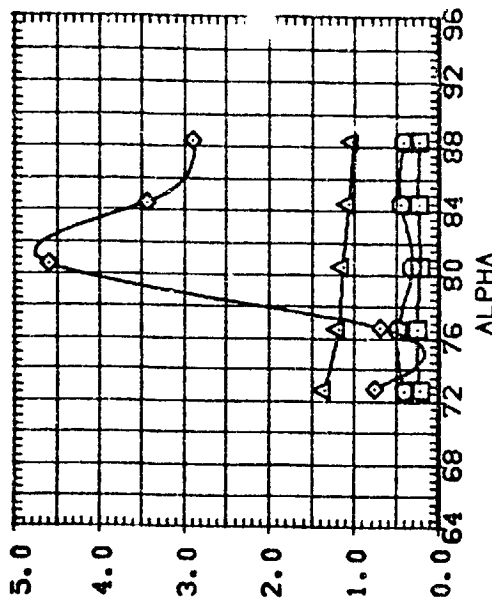
BETA PHI PWDSTR APTSTR REFERENCE INFORMATION
 0.000 0.000 1.200 1.200 SREF 0.3030 89.1M.
 0.000 45.000 1.200 1.200 LREF 0.6000 INCH
 0.000 90.000 1.200 1.200 SREF 0.6000 INCH
 0.000 135.000 1.200 1.200 YMRP 0.0810 INCH
 ZMRP 0.0000
 SCALE 0.0049



CYM



CBL

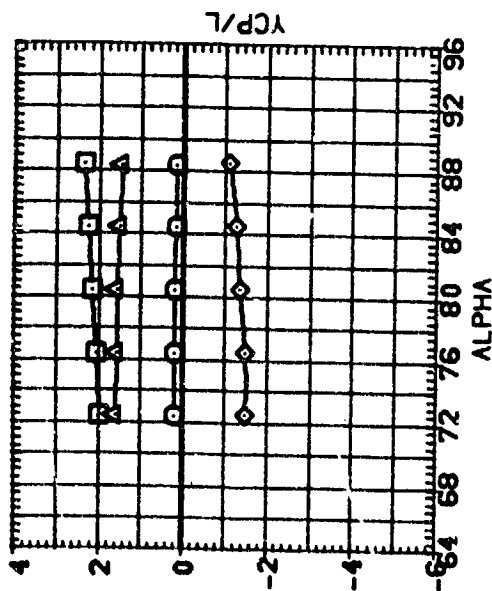


STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT

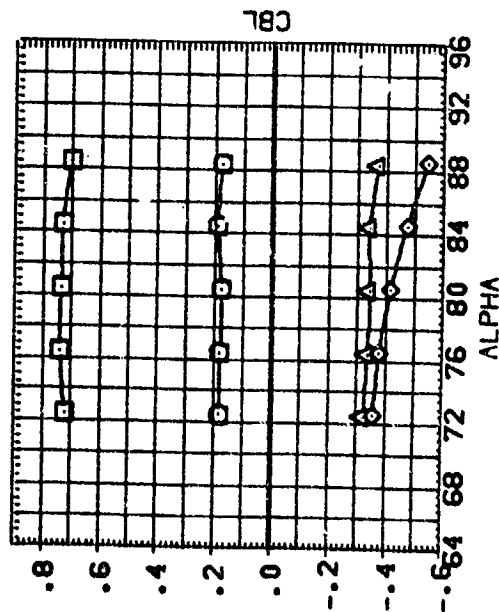
(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (779632) WSPC 334 (SAIP) PRB/SRB (NO GRIT)
 (779632) WSPC 334 (SAIP) PRB/SRB (NO GRIT)
 (779632) WSPC 334 (SAIP) PRB/SRB (NO GRIT)
 (779632) WSPC 334 (SAIP) PRB/SRB (NO GRIT)

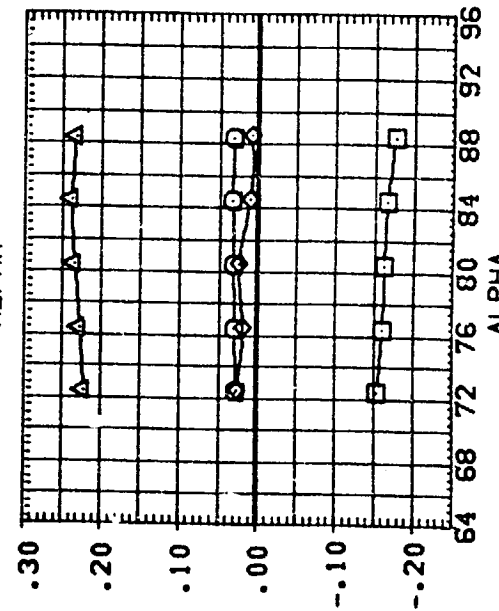
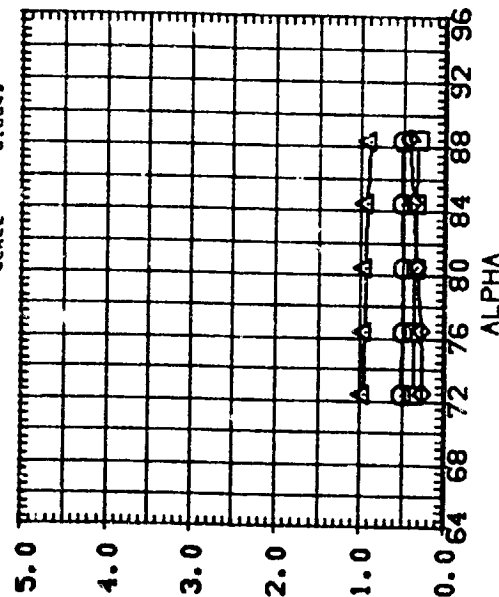
BETA PHI P/OSTK APTSTR REFERENCE INFORMATION
 0.000 0.000 1.200 1.200 SREF 0.0030 88.14 INCH
 0.000 45.000 1.200 1.200 LREF 0.0000 1 INCH
 0.000 90.000 1.200 1.200 MREF 0.0000 1 INCH
 0.000 135.000 1.200 1.200 YMRP 0.0610 1 INCH
 ZMRP 0.0000
 SCALE 0.0049



CYNM



CYNM

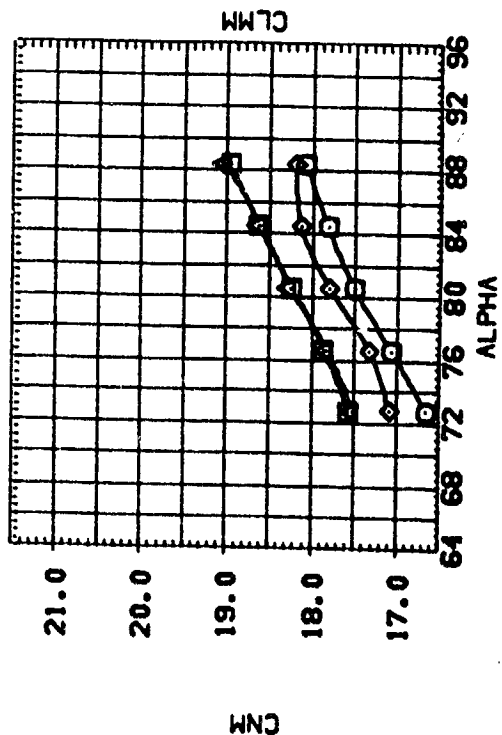
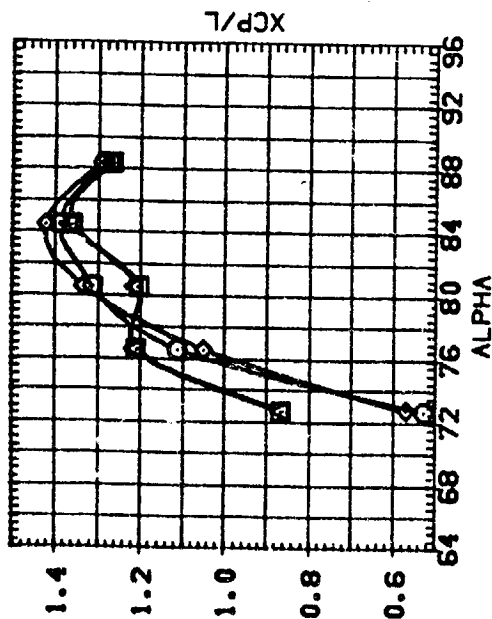


STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT

(B)MACH = 3.48

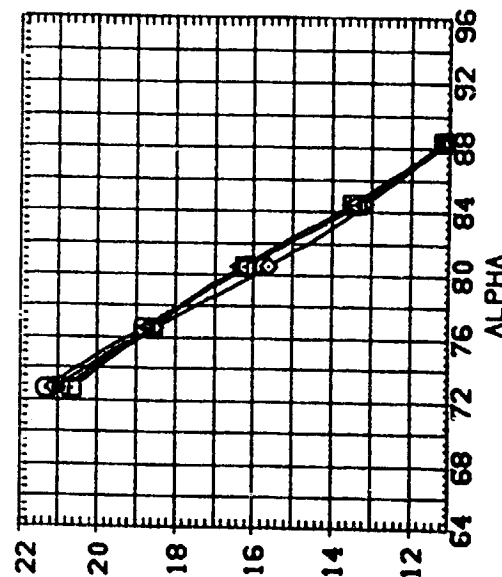
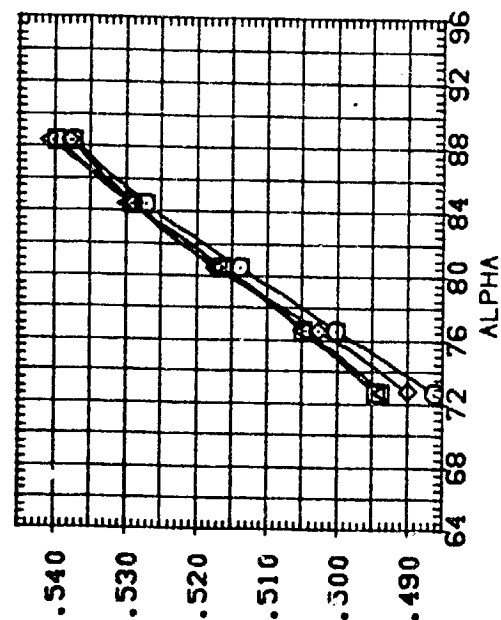
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(779C1E)	MSPC 554 (BAIP)	PAR/SRB (NO GRIT)
(779H1E)	MSPC 554 (BAIP)	PAR/SRB (NO GRIT)
(779H2E)	MSPC 554 (BAIP)	PAR/SRB (NO GRIT)
(779H3E)	MSPC 554 (BAIP)	PAR/SRB (NO GRIT)



BETA PHI FWDSTK AFTSTK REFERENCE INFORMATION

0.000	0.000	2.100	2.100	SRFP	0.5030	39.1IN.
0.000	0.900	2.100	2.100	LRFP	0.6000	1INCH
0.000	45.135	2.100	2.100	BRFP	0.6000	1INCH
0.000	50.180	2.100	2.100	XRFP	0.0810	1INCH
				YMRP	0.0000	
				ZMRP	0.0000	
				SCALE	0.0049	

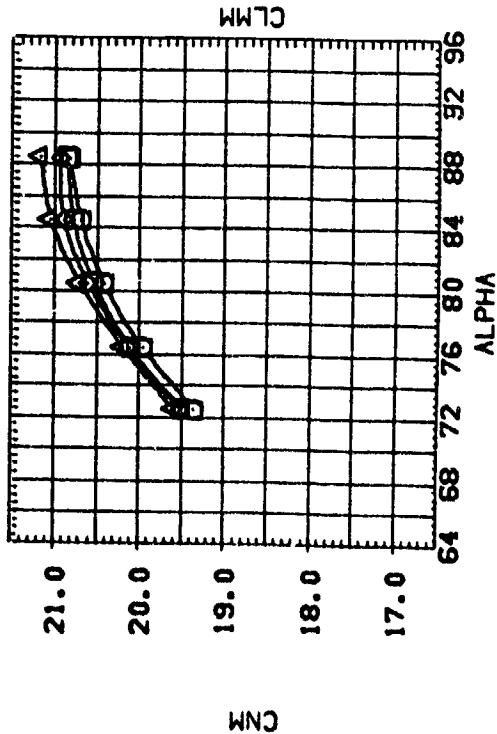
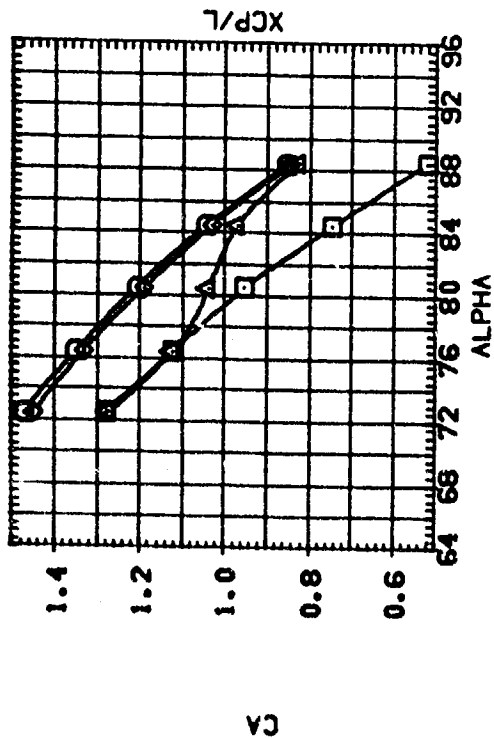


STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT

(A)MACH = .90

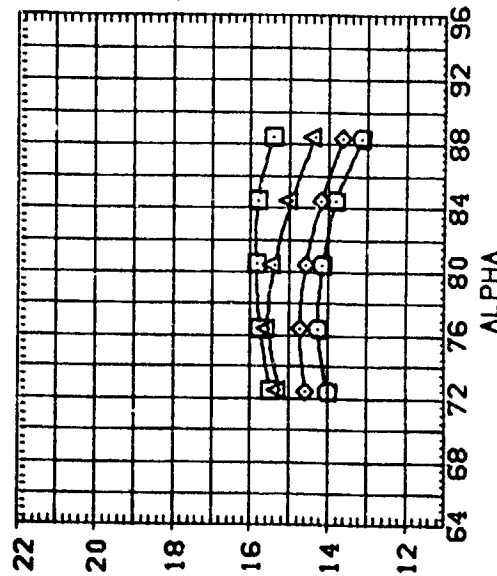
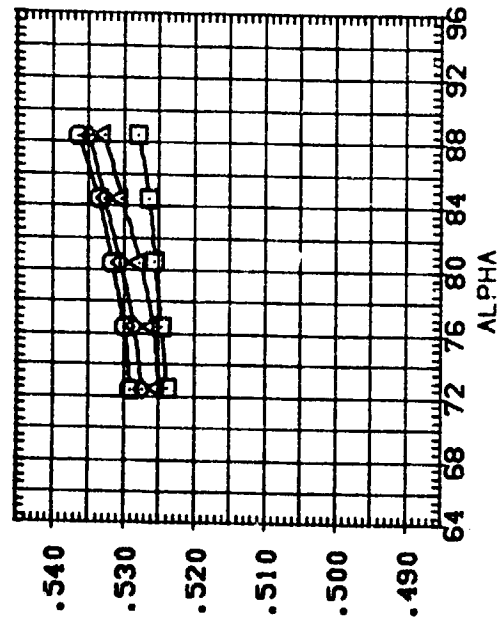
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(796C1E)	NSPC 534 (BA1P)	PRR/SRR (NO GRIT)
(796H1E)	NSPC 534 (BA1P)	PRR/SRR (NO GRIT)
(796H2E)	NSPC 534 (BA1P)	PRR/SRR (NO GRIT)
(796H3E)	NSPC 534 (BA1P)	PRR/SRR (NO GRIT)



BETA PHI PWDSTR APTSTR REFERENCE INFORMATION

0.000	0.000	2.100	SREF	0.5030	99.1M.
0.000	0.900	2.100	LREF	0.8000	1MCH
0.000	45.135	2.100	BREF	0.8000	1MCH
0.000	90.180	2.100	YHRP	0.0810	1MCH
			ZHRP	0.0000	
			SCALE	0.0049	

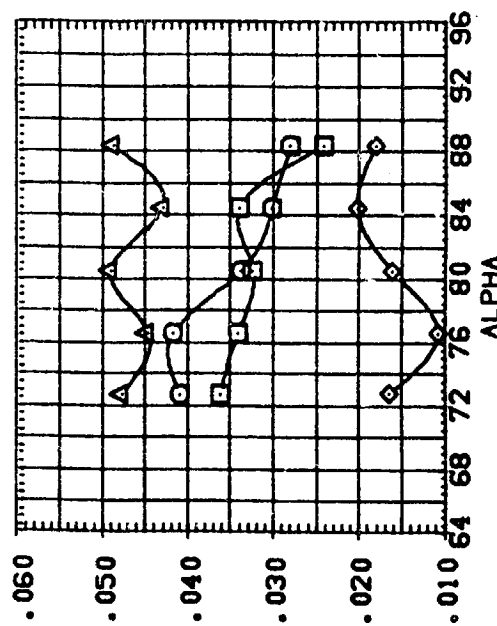
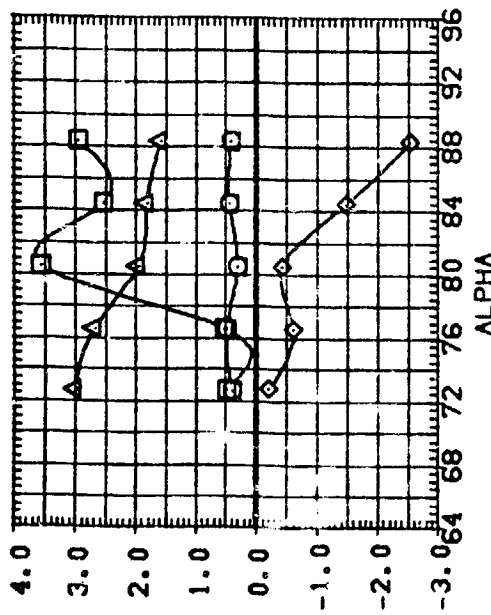
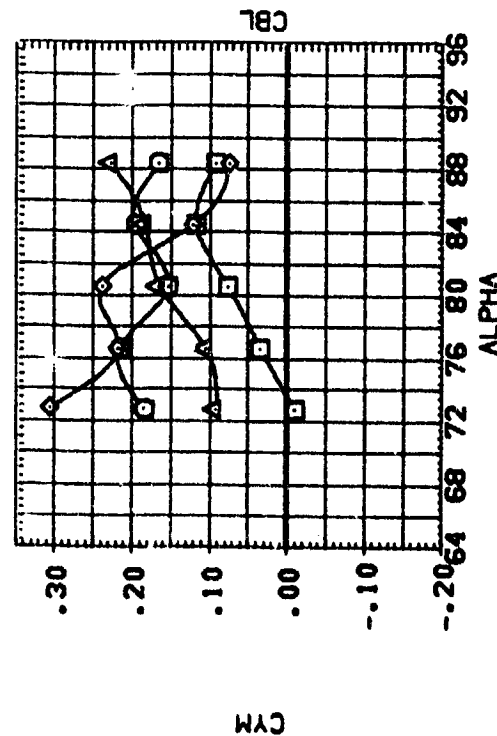
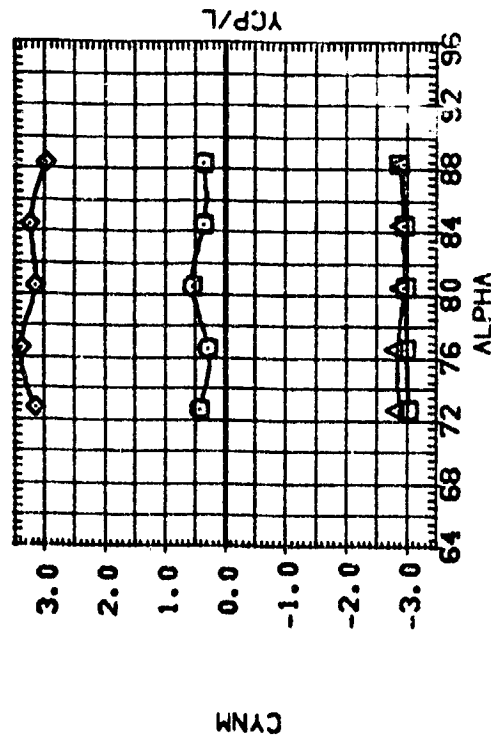


STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P79C12) Q M3PC 554 (3A1P) PRR/SRB (NO GRIT)
 (E79H12) Q M3PC 554 (3A1P) PRR/SRB (NO GRIT)
 (E79H12) Q M3PC 554 (3A1P) PRR/SRB (NO GRIT)
 (E79H12) Q M3PC 554 (3A1P) PRR/SRB (NO GRIT)

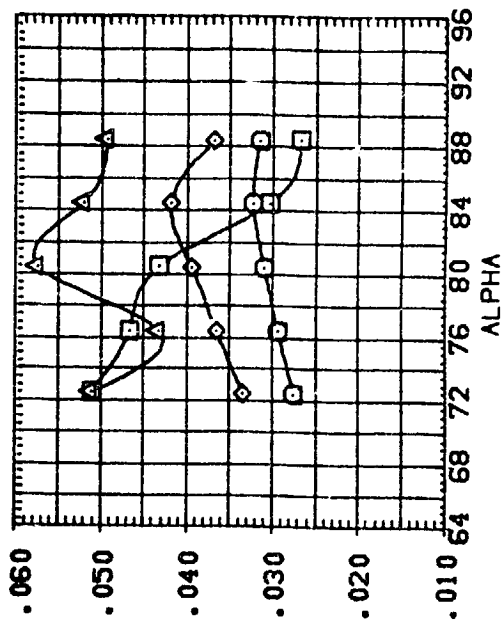
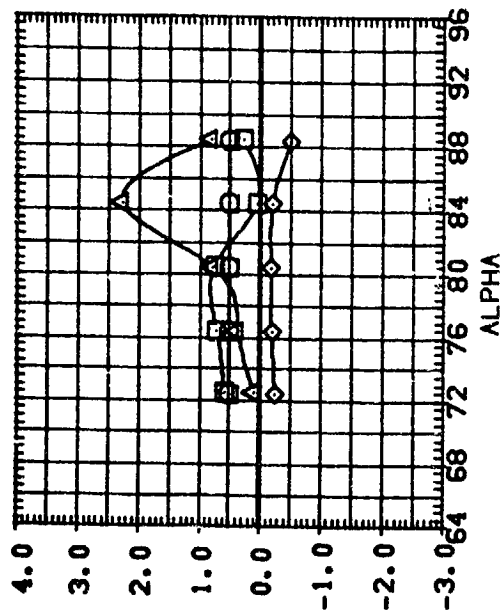
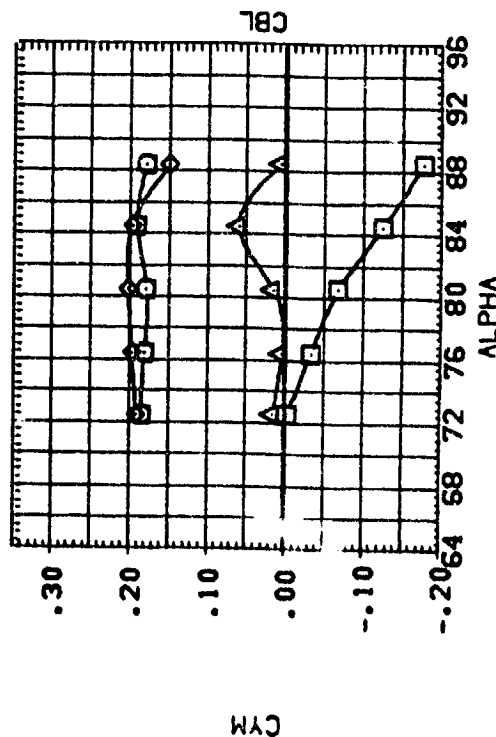
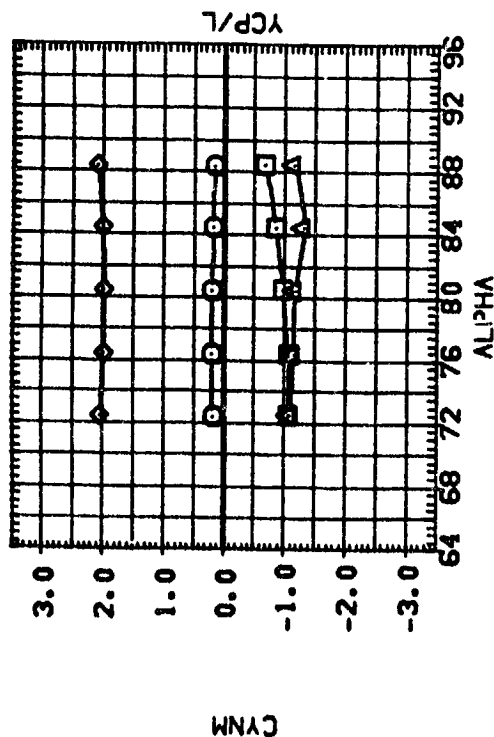
BETA PHI PWDSTR APTSTR REFERENCE INFORMATION
 0.000 0.000 2.100 2.100 SREF 0.5030 39.1M
 0.000 0.900 2.100 2.100 LREF 0.8000 INCH
 0.000 45.135 2.100 2.100 BREF 0.8000 INCH
 0.000 90.180 2.100 2.100 XMRP 6.0810 INCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT

(A)MACH = .90

REFERENCE INFORMATION	
BETA	0.000
PHI	0.000
FWHMT	2.100
APERT	2.100
SREP	0.500
LRP	0.000
MRP	0.000
YMRP	0.000
ZMRP	0.000
SCALE	0.0048



STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P79132) NSPC 334 (BALP) PRB/SRB (NO GRIT)

(P79132) NSPC 334 (BALP) PRB/SRB (NO GRIT)

(P79132) NSPC 334 (BALP) PRB/SRB (NO GRIT)

(P79132) NSPC 334 (BALP) PRB/SRB (NO GRIT)

BETA PHI FUGSTK APTSTK REFERENCE INFORMATION

0.000 0.000 1.100 1.200 SREF 0.5030 50.1M.

0.000 45.000 1.100 1.200 LREF 0.8000 1MCH

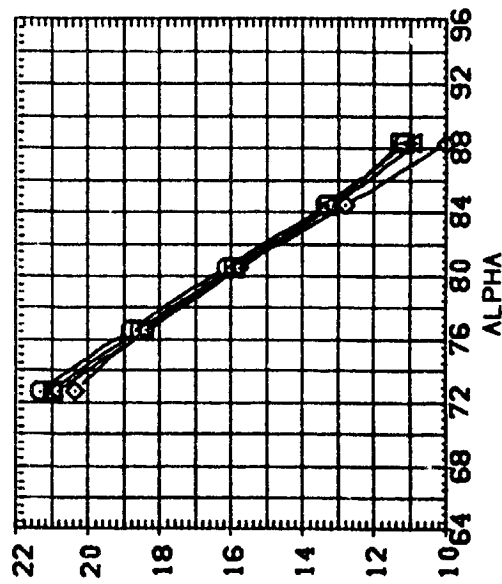
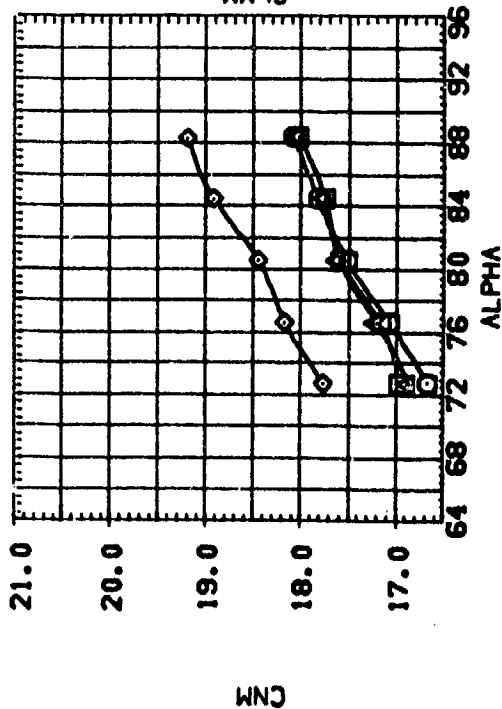
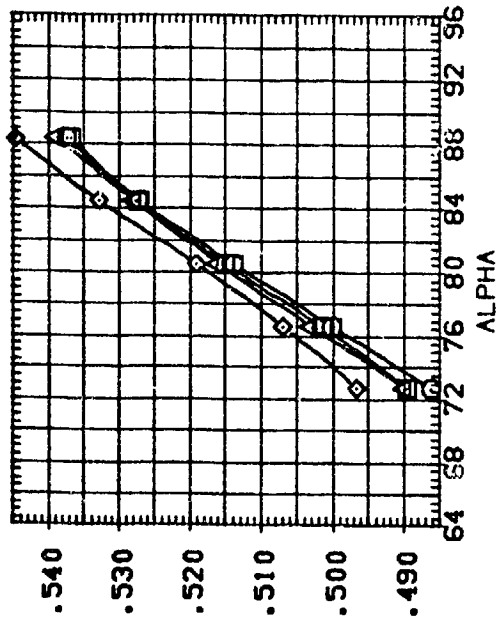
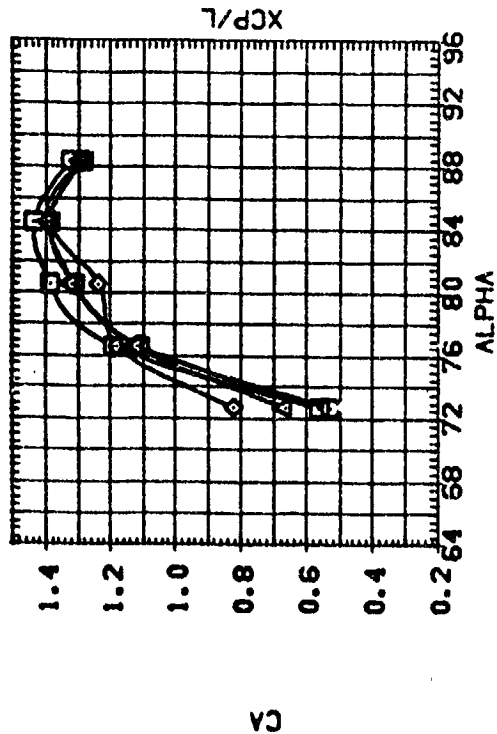
0.000 90.000 1.100 1.200 BREF 0.8000 1MCH

0.000 135.000 1.100 1.200 XMRP 0.0810 1MCH

0.000 0.0000 0.0000 0.0000 YMRP 0.0000 1MCH

0.0000 0.0000 0.0000 0.0000 ZMRP 0.0000 1MCH

0.0049 SCALE



STRAKE EFFECTIVENESS - 1 ONE CALIBER FWD AND 1 TWO CALIBER AFT

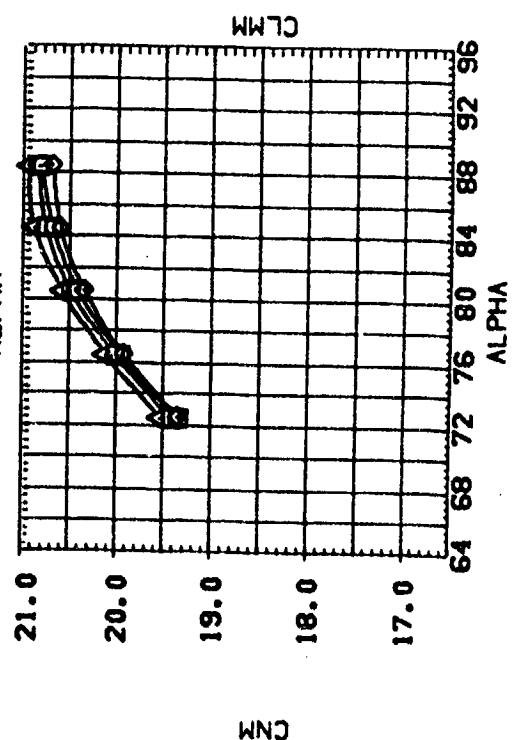
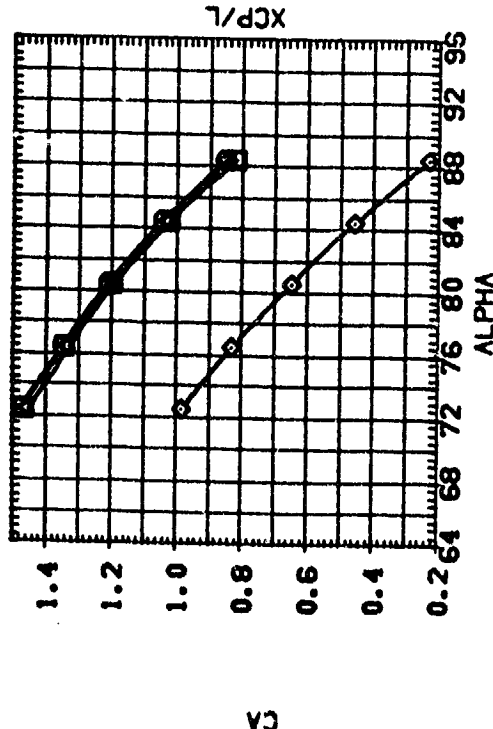
(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(775121) (775121) M3PC 534 (BA1P) M3P/534 (NO GRIT)

(775122) (775122) M3PC 534 (BA1P) M3P/534 (NO GRIT)

(775123) (775123) M3PC 534 (BA1P) M3P/534 (NO GRIT)



BETA PHI PMOSTK APTSTK REFERENCE INFORMATION

0.000 0.000 1.100 1.200 BREP 0.8030 88.1N.

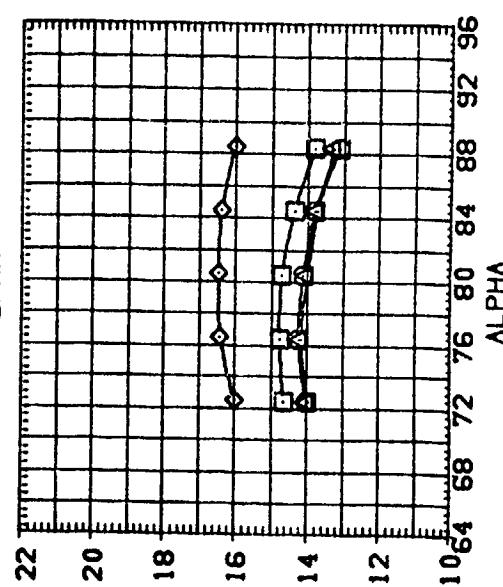
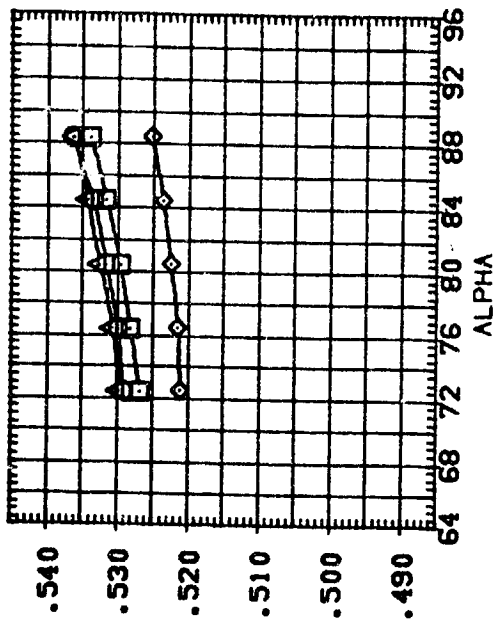
0.000 45.000 1.200 1.200 LREP 0.8000 1NCH

0.000 90.000 1.100 1.200 XREP 0.8000 1NCH

0.000 135.000 1.100 1.200 YMRP 0.0010 1NCH

0.000 0.000 0.000 0.000 ZMRP 0.0000 1NCH

0.000 0.000 0.000 0.000 SCALE 0.0049

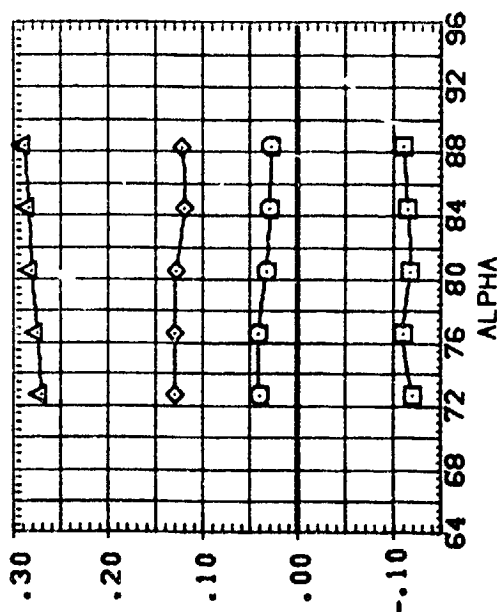
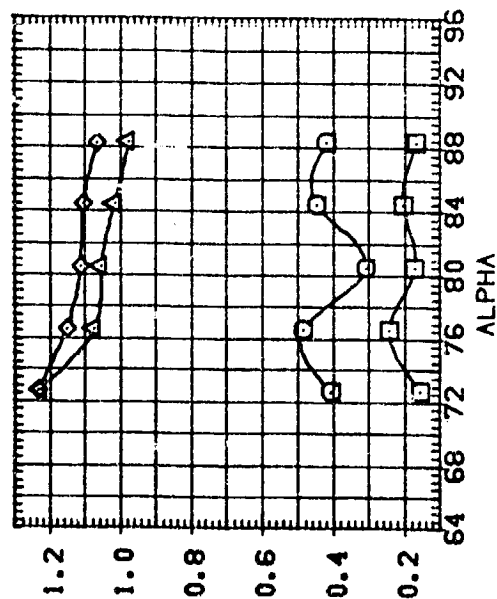
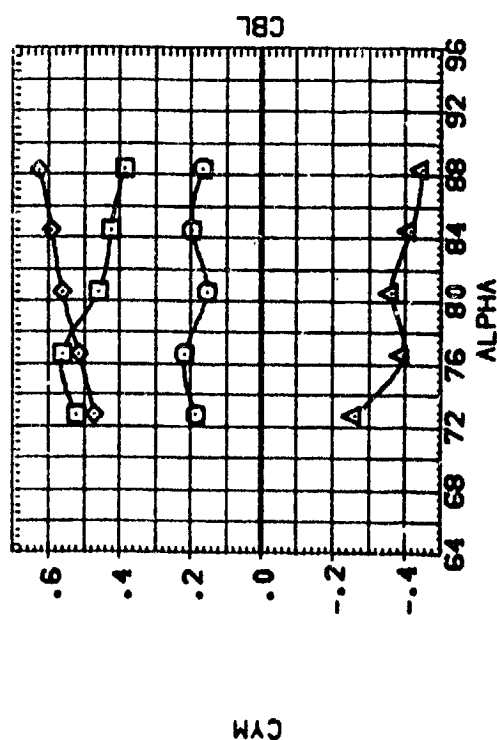
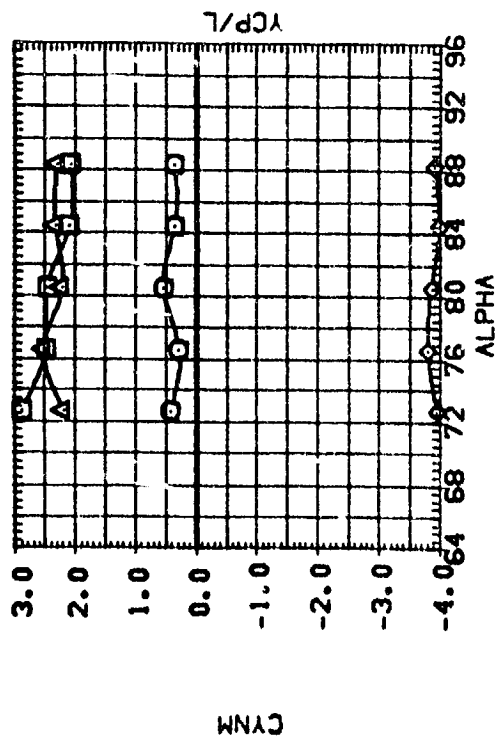


STRAKE EFFECTIVENESS - 1 ONE CALIBER FWD AND 1 TWO CALIBER AFT

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EP913E1) MSFC 334 (BA1P) PRR/SRB (NO GR1T)
 (EP913E2) MSFC 334 (BA1P) PRR/SRB (NO GR1T)
 (EP913E3) MSFC 334 (BA1P) PRR/SRB (NO GR1T)

BETA PHI FMS/STK APTSTK REFERENCE INFORMATION
 0.000 0.000 1.100 1.200 SREF 0.5030 50.1M.
 0.000 45.000 1.100 1.200 LREF 0.8000 1MCM
 0.000 90.000 1.100 1.200 XMRP 0.8000 1MCM
 0.000 135.000 1.100 1.200 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



STRAKE EFFECTIVENESS - 1 ONE CALIBER FWD AND 1 TWO CALIBER AFT

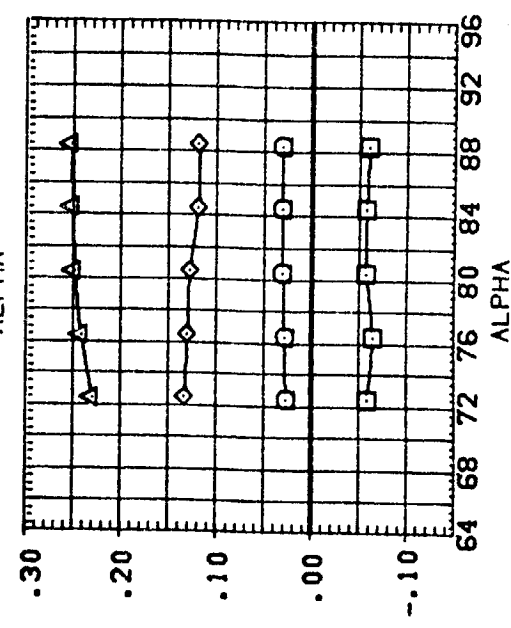
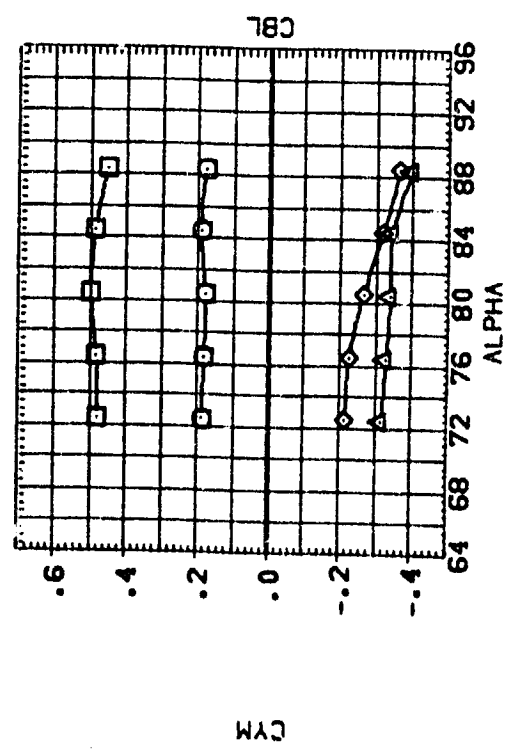
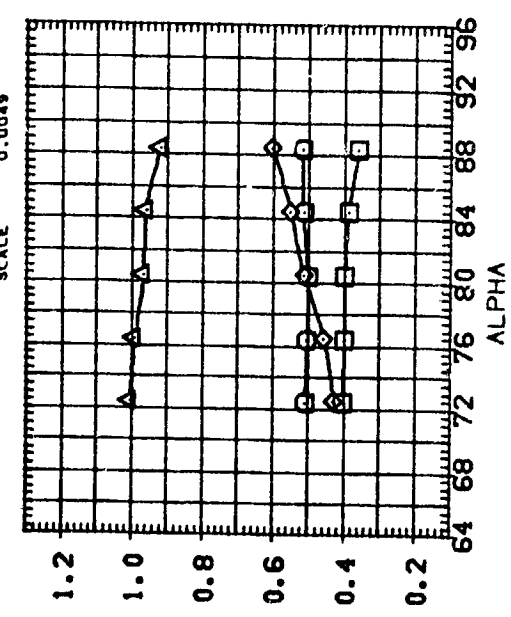
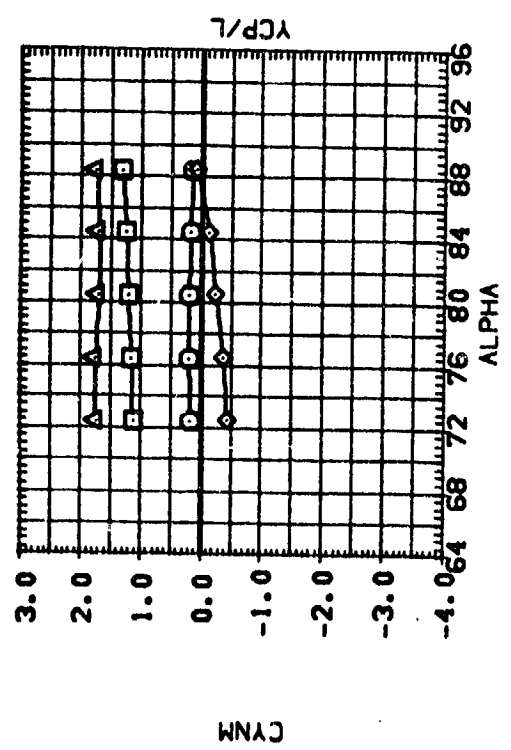
(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

17793121	MSPC 554 (BA1P) PAR/WRB (NO GRIT)
17793122	MSPC 554 (BA1P) PAR/WRB (NO GRIT)
17793123	MSPC 554 (BA1P) PAR/WRB (NO GRIT)
17793124	MSPC 554 (BA1P) PAR/WRB (NO GRIT)

BETA PHI PMSTK APTSTK REFERENCE INFORMATION

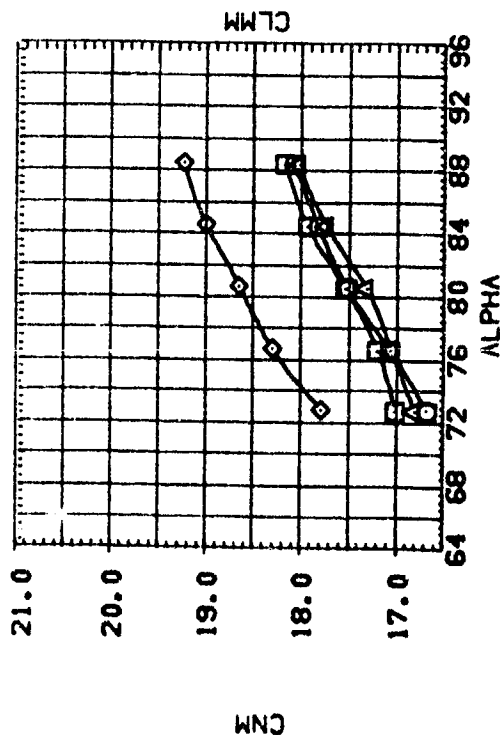
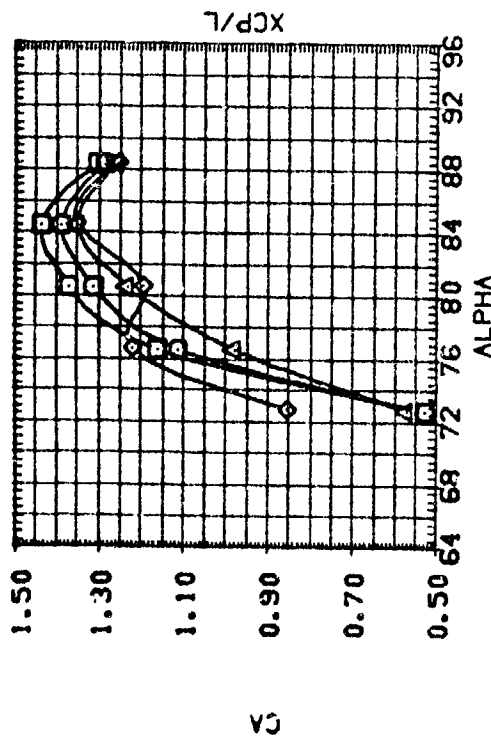
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0.000	135.000	1.100	1.200	REF	0.000	INCH
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				WRP	0.000	
				SCALE	0.0049	



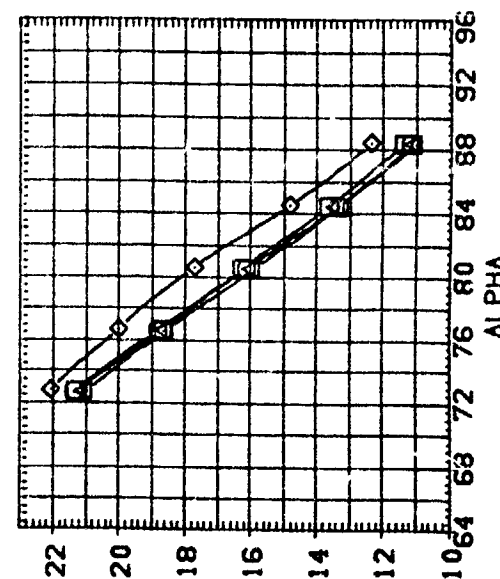
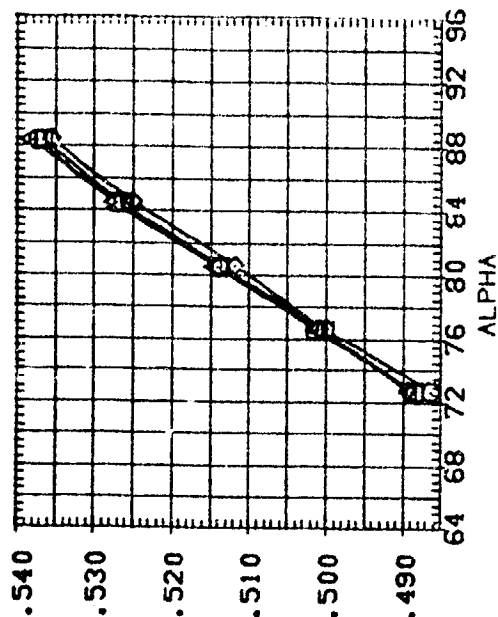
STRAKE EFFECTIVENESS - 1 ONE CALIBER FWD AND 1 TWO CALIBER AFT
 (B)MACH = 3.48

DATA KEY SYMBOL
 (79312) NSPC 334 (BALP) PRS/SRB (NO GRIT)
 (79313) NSPC 334 (BALP) PRS/SRB (NO GRIT)
 (79314) NSPC 334 (BALP) PRS/SRB (NO GRIT)
 (79315) NSPC 334 (BALP) PRS/SRB (NO GRIT)

CONFIGURATION DESCRIPTION



BETA PHI FMOSTK APTSTK REFERENCE INFORMATION
 0.000 0.000 1.200 1.100 SREF 0.5030 50.1N.
 0.000 45.000 1.200 1.100 LREF 0.8000 1NCH
 0.000 90.000 1.200 1.100 BREF 0.8000 1NCH
 0.000 135.000 1.200 1.100 XMRP 0.0810 1NCH
 0.000 0.000 0.000 0.000 YMRP 0.0000
 0.000 0.000 0.000 0.000 ZMRP 0.0000
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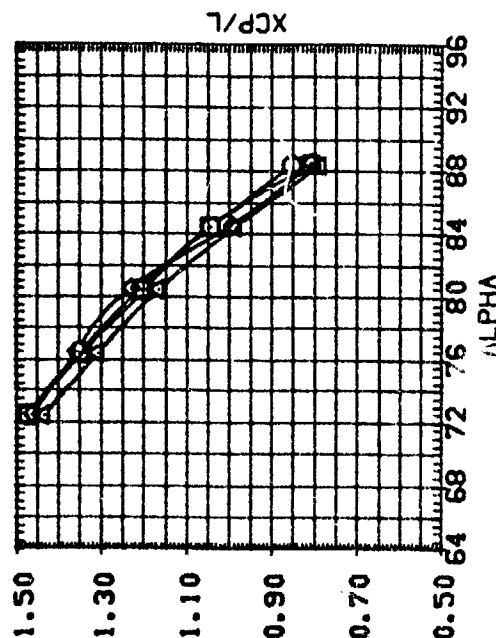


STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

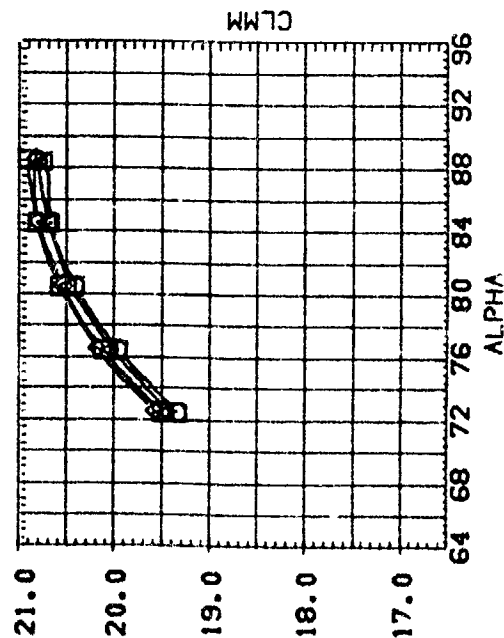
(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (E79J32) NSPC 534 (SALP) PRR/SRB (NO GRIT)
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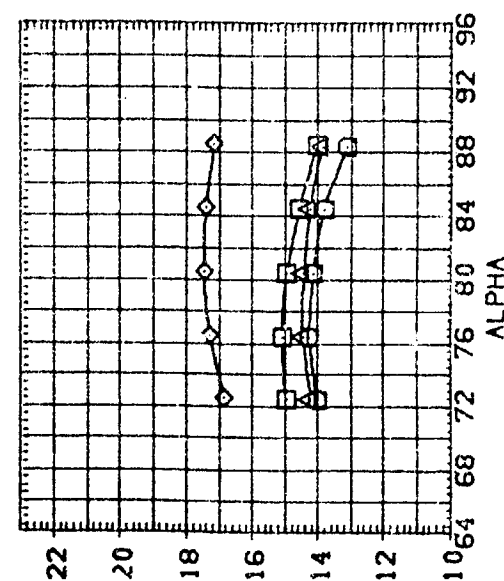
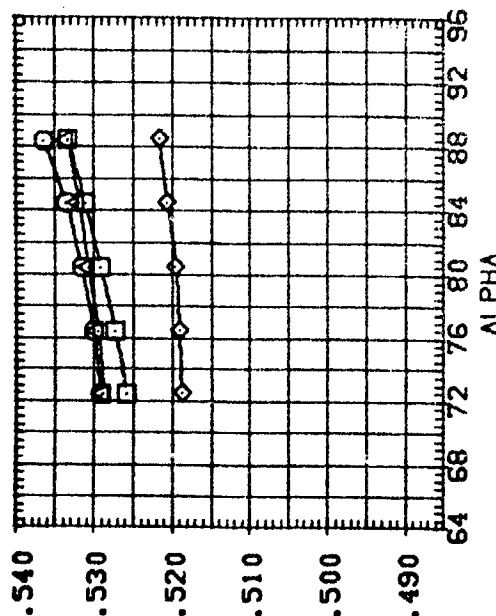
BETA PHI PWOSTR APTSTR REFERENCE INFORMATION
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 0.000 45.000 1.200 1.100 LREF 0.8000 1NCH
 0.000 90.000 1.200 1.100 SREF 0.8000 1NCH
 0.000 135.000 1.200 1.100 YMRP 6.0610 1NCH
 ZMRP 0.0000
 SCALE 0.0049



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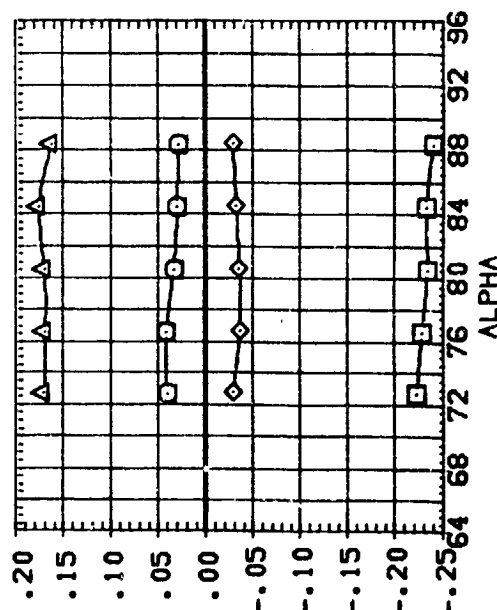
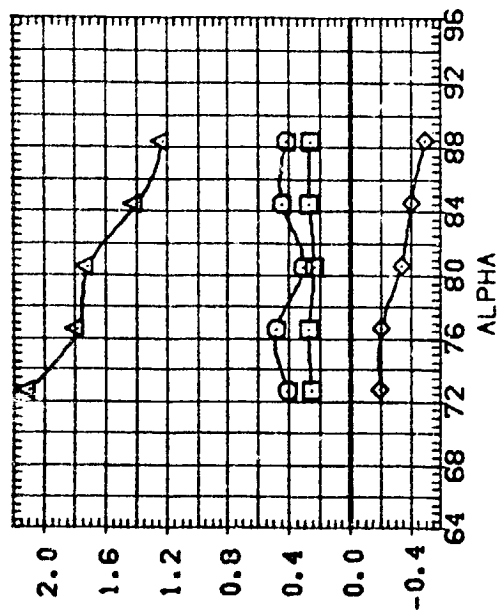
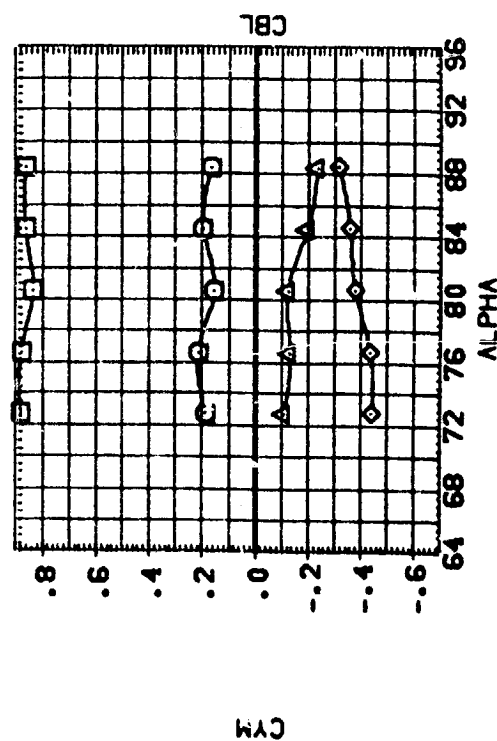
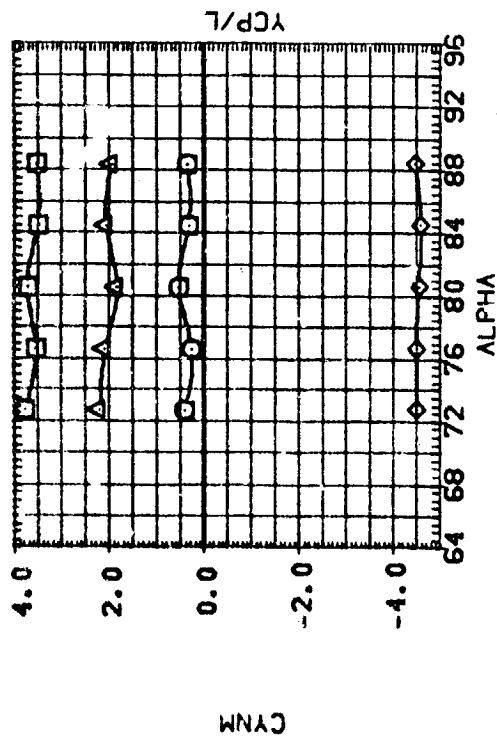


STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

(8)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (C76J3E1) M5PC 554 (5A1P) PRN/SRB (NO GRIT)
 (C76J3E1) M5PC 554 (5A1P) PRN/SRB (NO GRIT)
 (C76J3E1) M5PC 554 (5A1P) PRN/SRB (NO GRIT)

BETA PHI FWDSTK APTSTK REFERENCE INFORMATION
 0.000 0.000 1.200 1.100 SREF 0.5030 50.1N.
 0.000 45.000 1.200 1.100 LREF 0.8000 INCH
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 ZMRP 0.0000
 SCALE 0.0049

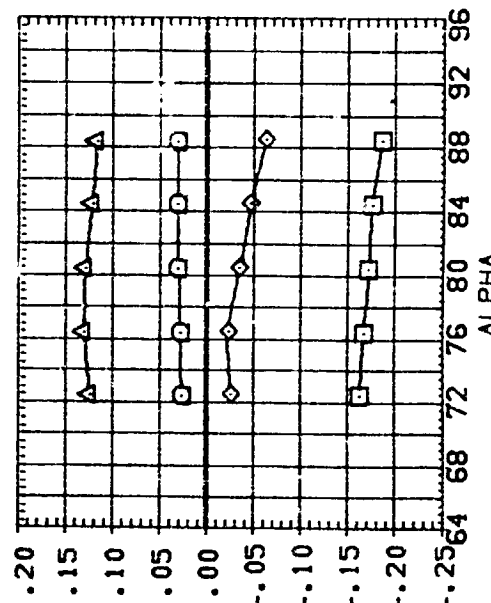
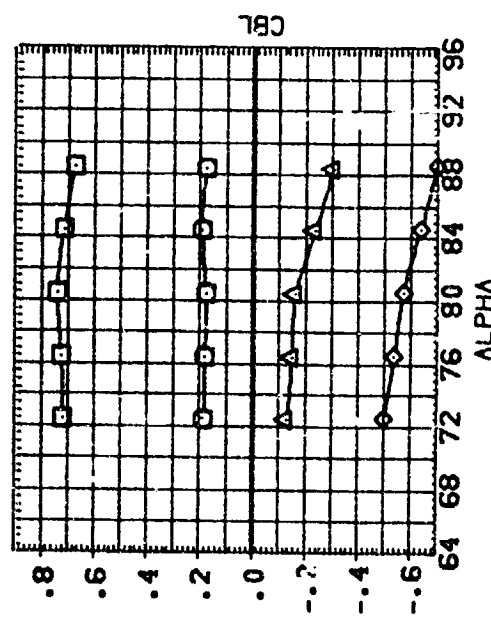
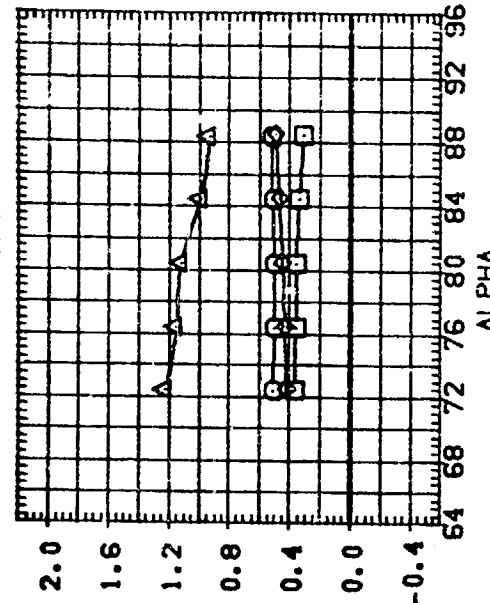
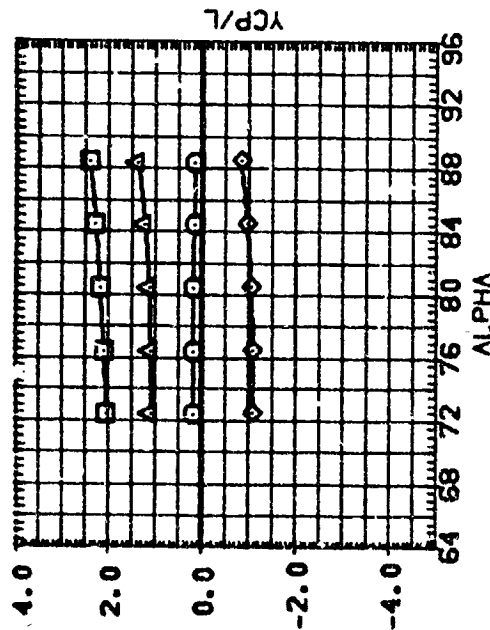


STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

(AJMACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P79C12) MSFC 334 (SA1P) PER/SRB (NO GRIT)
 (C79J3C) MSFC 334 (SA1P) PER/SRB (NO GRIT)
 (C79J3C) MSFC 334 (SA1P) PER/SRB (NO GRIT)
 (C79J3C) MSFC 334 (SA1P) PER/SRB (NO GRIT)

BETA PHI FWO STK APT STK REFERENCE INFORMATION
 0.000 0.000 1.200 1.100 REF 0.000 94.1M
 0.000 45.000 1.200 1.100 LREF 0.000 1MCH
 0.000 90.000 1.200 1.100 XREF 0.000 1MCH
 0.000 135.000 1.200 1.100 XMRP 0.000 1MCH
 0.000 0.000 1.200 1.100 YMRP 0.000 1MCH
 0.000 0.000 1.200 1.100 ZMRP 0.000 1MCH
 0.000 0.000 1.200 1.100 SCALE 0.0049

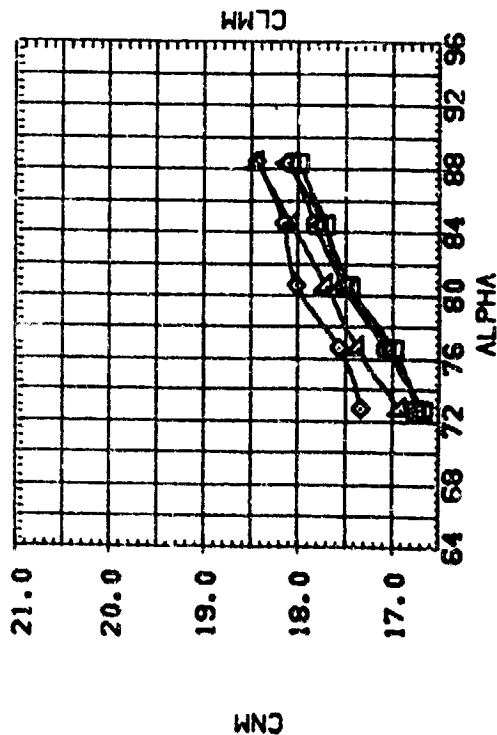
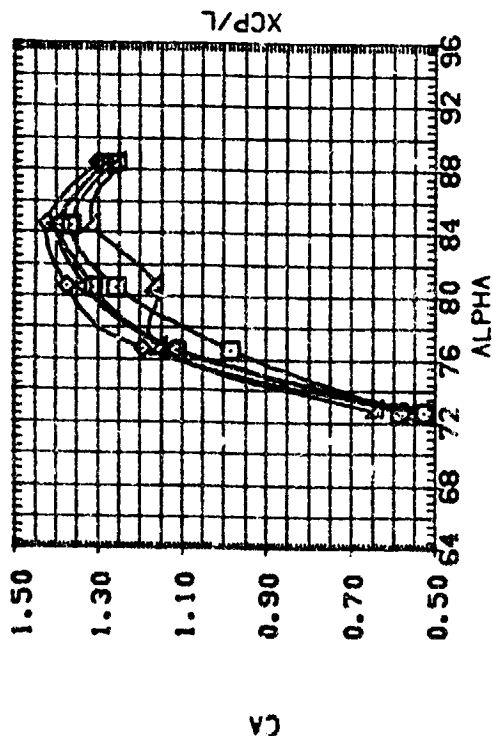


STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

(B)MACH = 3.48

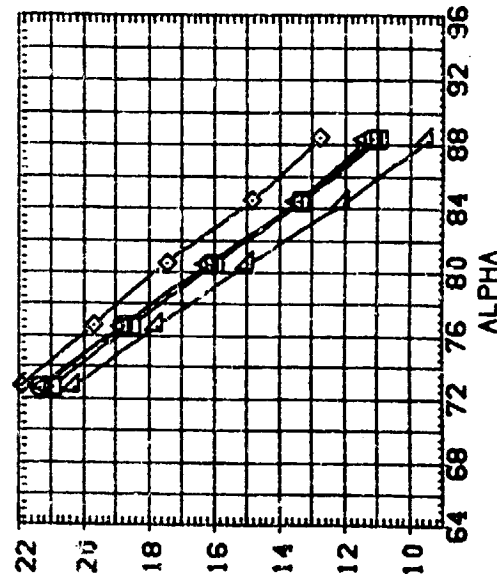
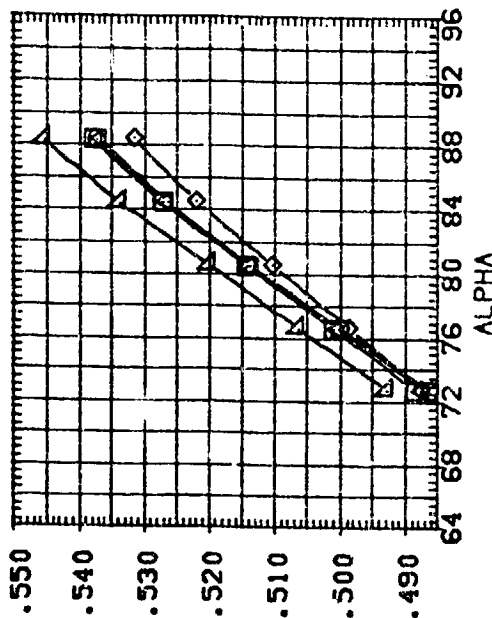
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P99C1E)	WSFC 534 (BA1P)	PRR/SRB (NO GRIT)
(C99L3E)	WSFC 534 (BA1P)	PRR/SRB (NO GRIT)
(E99L3E)	WSFC 534 (BA1P)	PRR/SRB (NO GRIT)
(E99H3E)	WSFC 534 (BA1P)	PRR/SRB (NO GRIT)
(E99H3E)	WSFC 534 (BA1P)	PRR/SRB (NO GRIT)



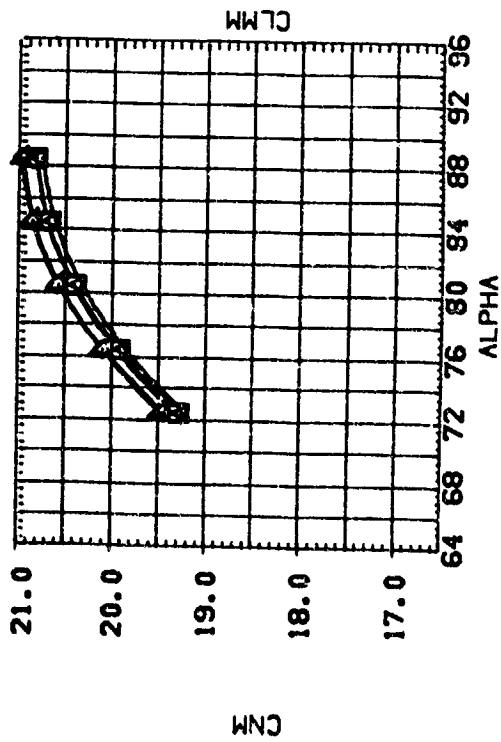
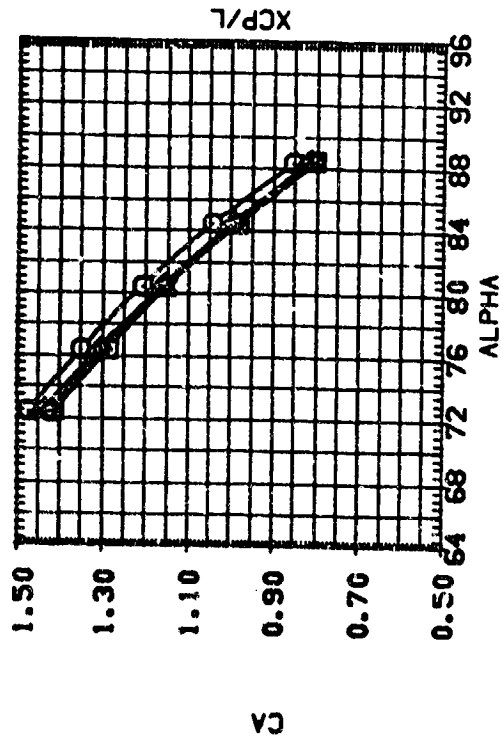
BETA PHI PWSTK APTSTK REFERENCE INFORMATION

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0.000	45.000	1.100	LRP	0.8000	1NCH
0.000	90.000	1.100	BRP	0.8000	1NCH
0.000	45.000	1.100	YMRP	0.0010	1NCH
0.000	90.000	1.100	ZMRP	0.0000	
			SCALE	0.0049	

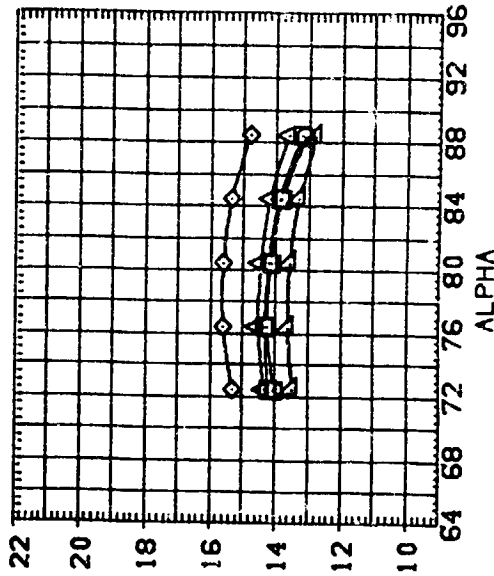
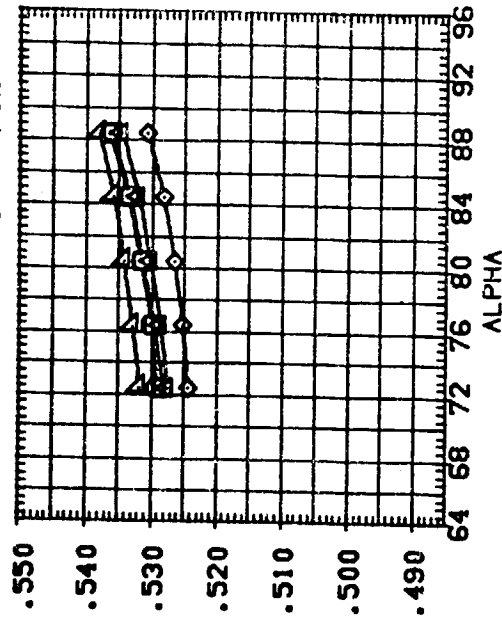


STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE
(AJMACH = .90)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PT9C12) W3PC 334 (SA1P) PR/DRB (NO GRIT)
 (E79L3E) W3PC 334 (SA1P) PR/DRB (NO GRIT)
 (E79L3E) W3PC 334 (SA1P) PR/DRB (NO GRIT)
 (E79H3E) W3PC 334 (SA1P) PR/DRB (NO GRIT)
 (E79H3E) W3PC 334 (SA1P) PR/DRB (NO GRIT)



BETA PHI PABSTK APT3TK REFERENCE INFORMATION
 0.000 0.000 1.100 1.100 SREP 0.3030 86.1M
 0.000 45.000 1.100 1.100 LREP 0.8000 INCH
 0.000 90.000 1.100 1.100 GREP 0.8000 INCH
 0.000 45.000 1.100 1.100 XMRP 6.0810 INCH
 0.000 90.000 1.100 1.100 YMRP 0.0000
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 SCALE 0.0049

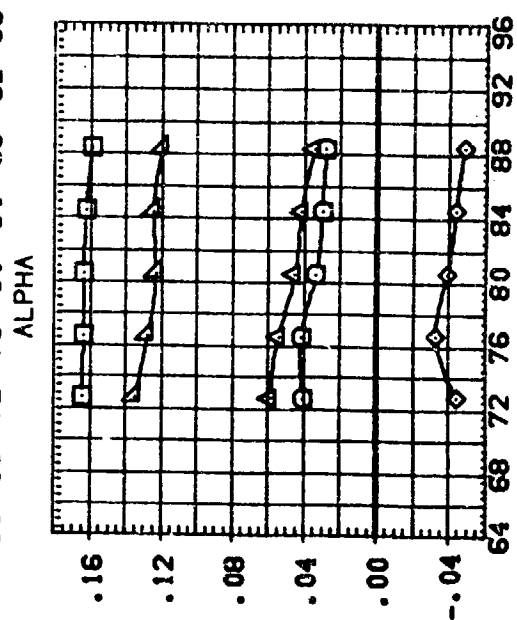
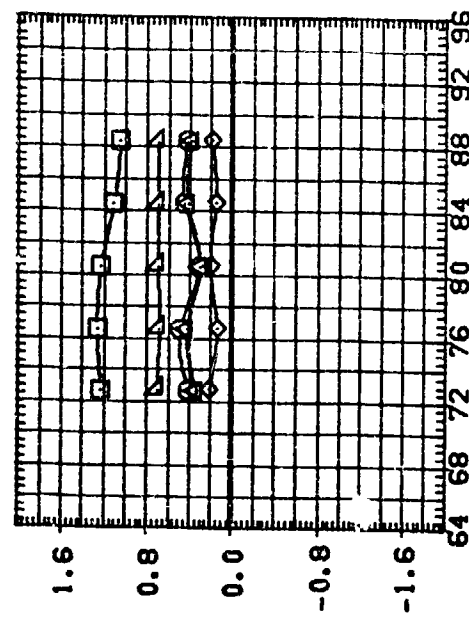
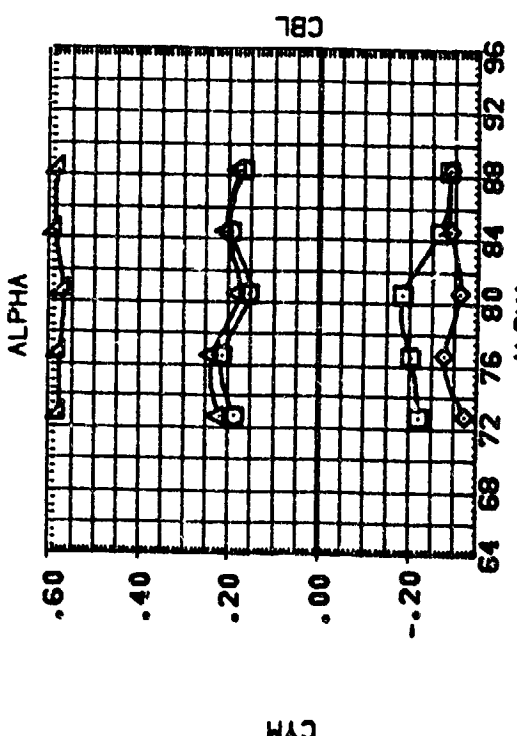
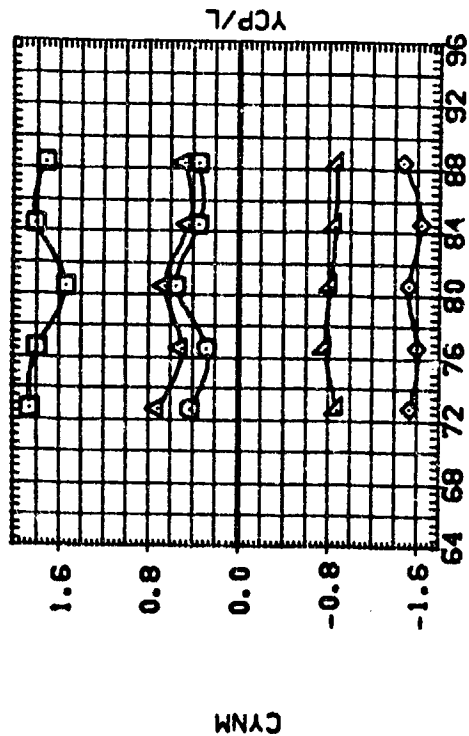


STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE

(B)MACH = 3.48

DATA KEY SYMBOL CONFIGURATION DESCRIPTION
 (779C12) NSPC 334 (3A1P) PRR/SRB (NO GRIT)
 (279L32) NSPC 334 (3A1P) PRR/SRB (NO GRIT)
 (279L32) NSPC 334 (3A1P) PRR/SRB (NO GRIT)
 (279L32) NSPC 334 (3A1P) PRR/SRB (NO GRIT)
 (279L32) NSPC 334 (3A1P) PRR/SRB (NO GRIT)

BETA PHI PWDBK APTBTK REFERENCE INFORMATION
 0.000 0.000 1.100 0.5030 88.1M.
 0.000 45.000 1.100 0.8000 INCH
 0.000 90.000 1.100 0.8000 INCH
 0.000 45.000 1.100 0.610 INCH
 0.000 90.000 1.100 0.0000
 0.000 90.000 1.100 0.0000
 0.000 90.000 1.100 0.0049
 0.000 90.000 1.100 0.0049



STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE

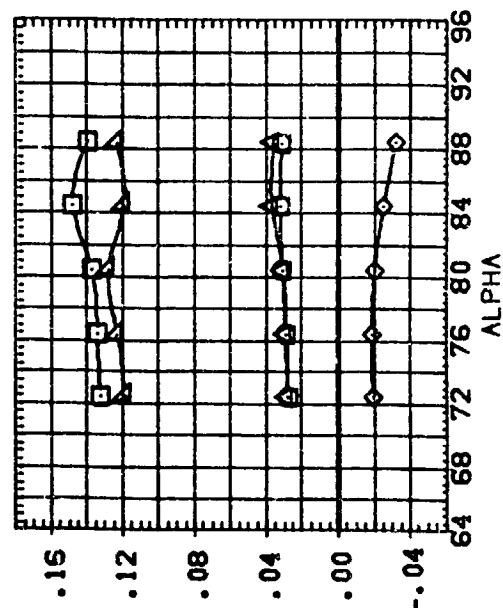
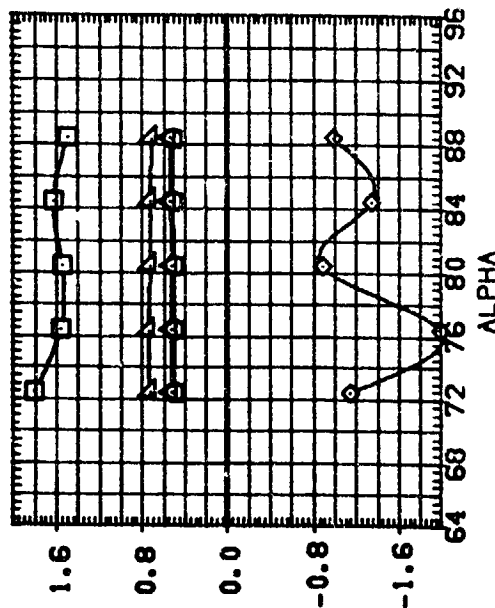
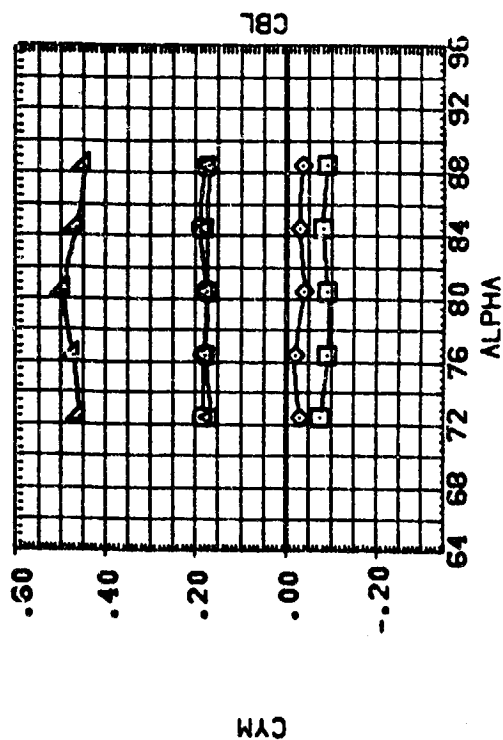
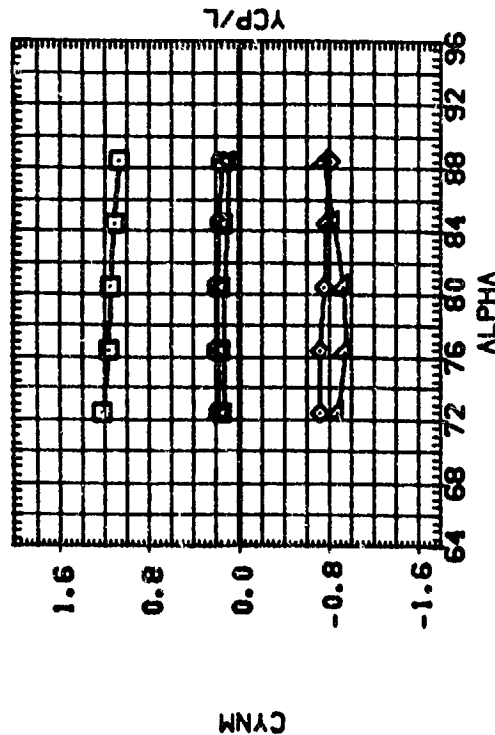
(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

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001	NSPC 354 (SALP)	PRR/RRS (NO 6817)
002	NSPC 354 (SALP)	PRR/RRS (NO 6817)
003	NSPC 354 (SALP)	PRR/RRS (NO 6817)
004	NSPC 354 (SALP)	PRR/RRS (NO 6817)
005	NSPC 354 (SALP)	PRR/RRS (NO 6817)

BETA PHI PMOSTR APTSTR REFERENCE INFORMATION

0.000	0.000	1.100	SRFP	0.5030	88.1M.
0.000	45.000	1.100	LRFP	0.6000	THCH
0.000	90.000	1.100	SRFP	0.6000	THCH
0.000	45.000	1.100	XRFP	6.0810	THCH
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			SCALE	0.0049	

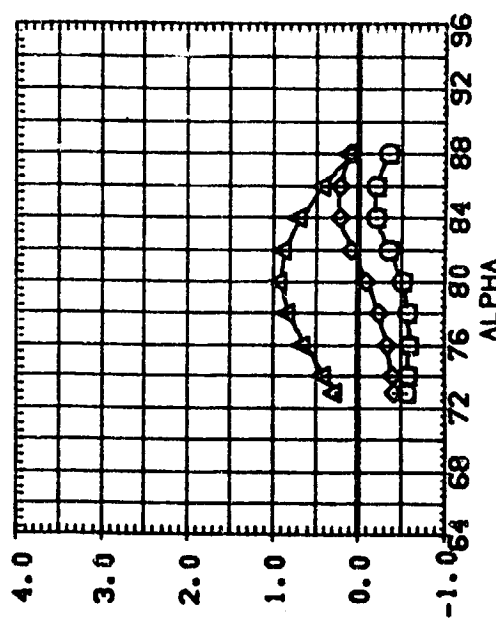
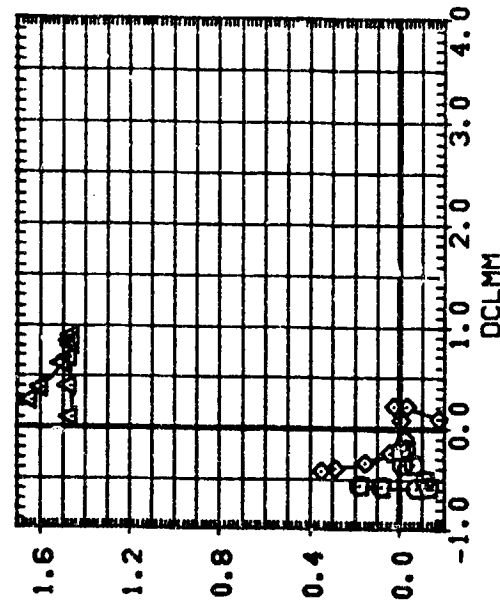
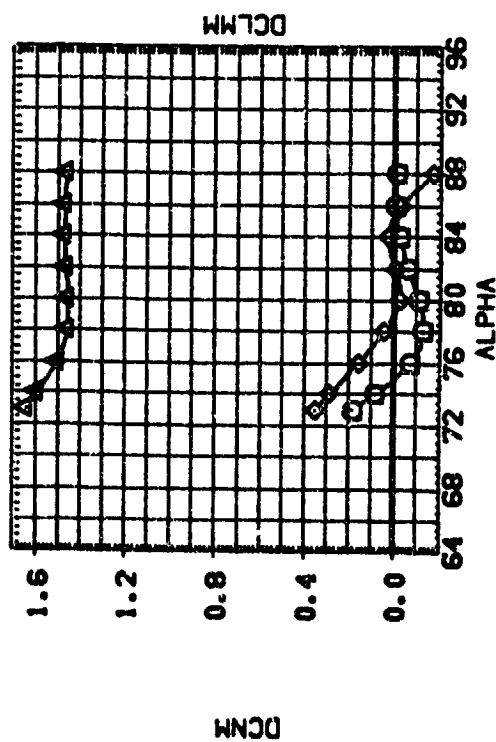
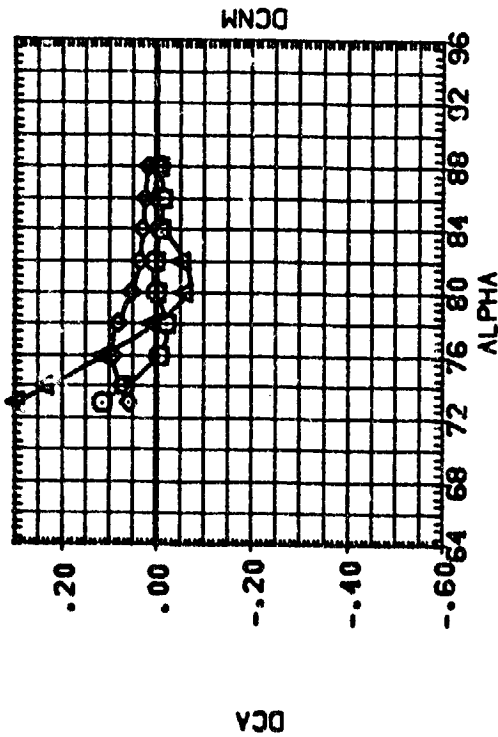


STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CT9632) HSPC 554 (BALP) PRP/SBS (NO GRIT)
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 (CT9632) HSPC 554 (BALP) PRP/SBS (NO GRIT)

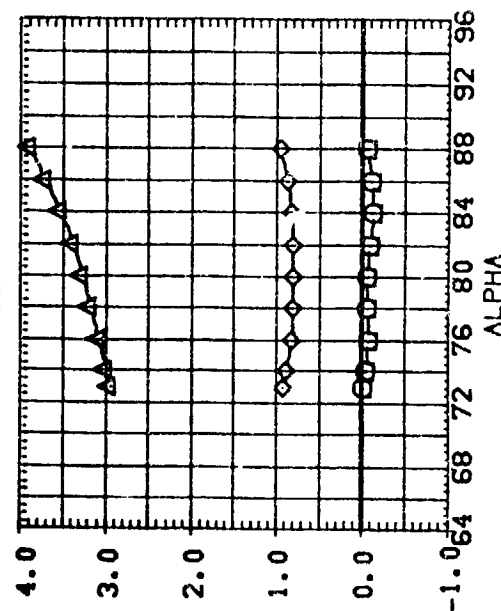
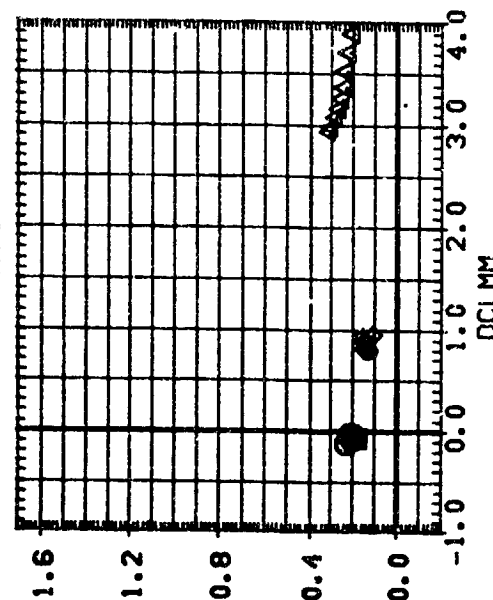
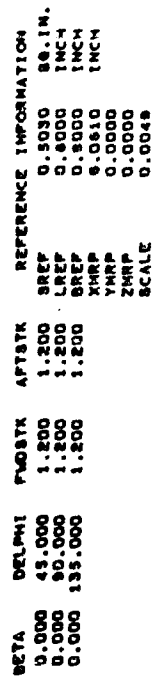
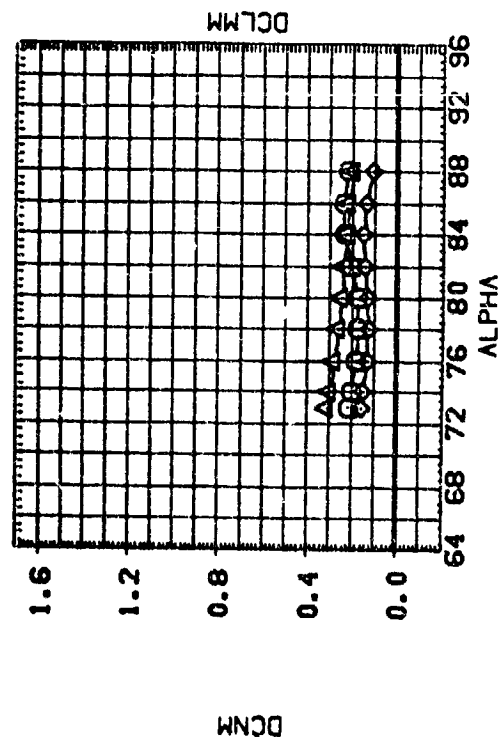
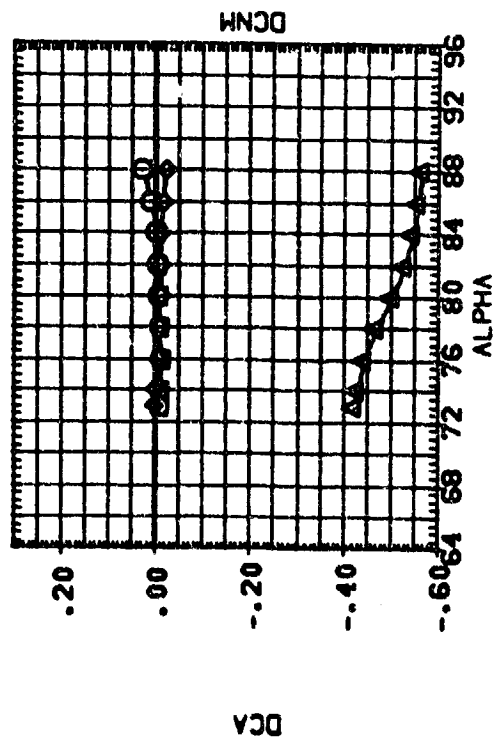
BETA DCLM:1 PWOXK APTXK REFERENCE INFORMATION
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 0.000 90.000 1.200 1.200 0.8000 1NCH
 0.000 135.000 1.200 1.200 0.8000 1NCH
 YMRP 0.0010 1NCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT

(A)MACH = .90

W3PC 554 (3A1P) PRR/SRB (NO CRT)



STRAKE-EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT

(B)MACH = 3.48

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DATA SET SYMBOL	COMPIGURATION DESCRIPTION
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100	100

Q	(C963E)	M3PC 534 (3A1P)	PAR/3AB	(NO CRIT)
Δ	(C963E)	M3PC 534 (3A1P)	PAR/3AB	(NO CRIT)
◇	(C967E)	M3PC 534 (3A1P)	PAR/3AB	(NO CRIT)

DETA DELPHI FWO3TK APT8TK

0.000	45.000	1.200	1.200
0.000	90.000	1.200	1.200
0.000	135.000	1.200	1.200

REFERENCE INFORMATION

HCH:	0008.0	43
HCH:	0.000.0	43
N.I.S	0.000.0	43

1.4.2.3

444

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ACE

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III

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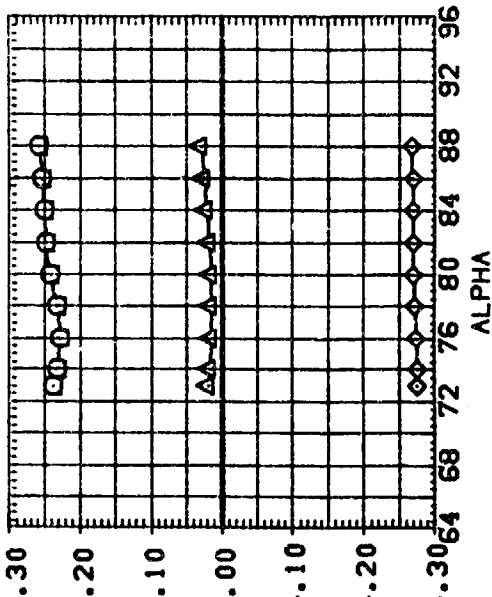
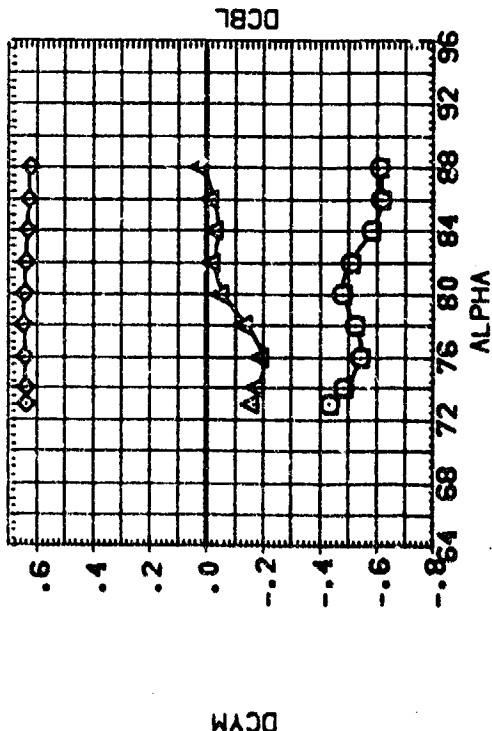
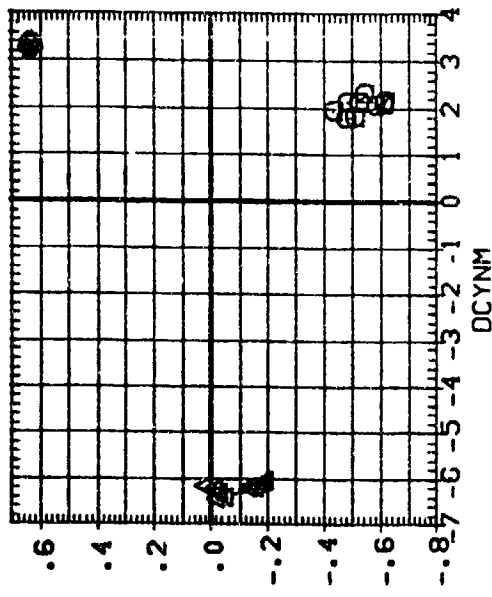
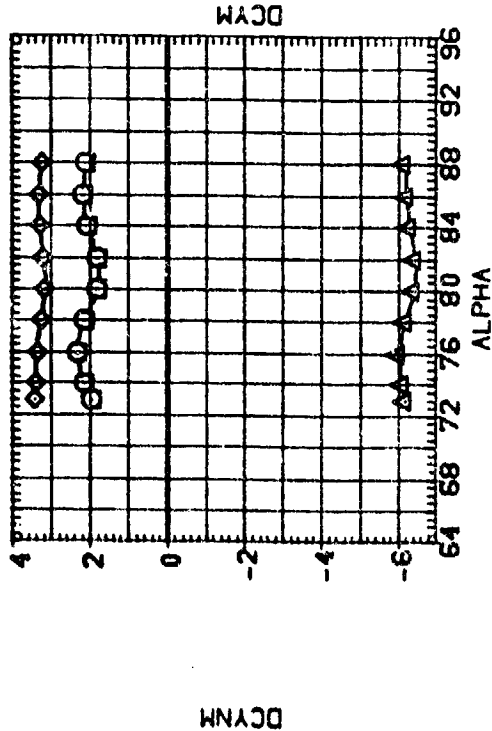
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ATIC

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3

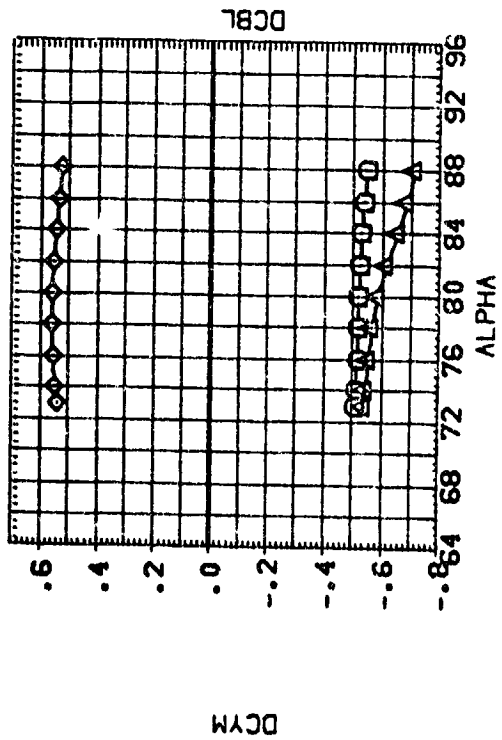
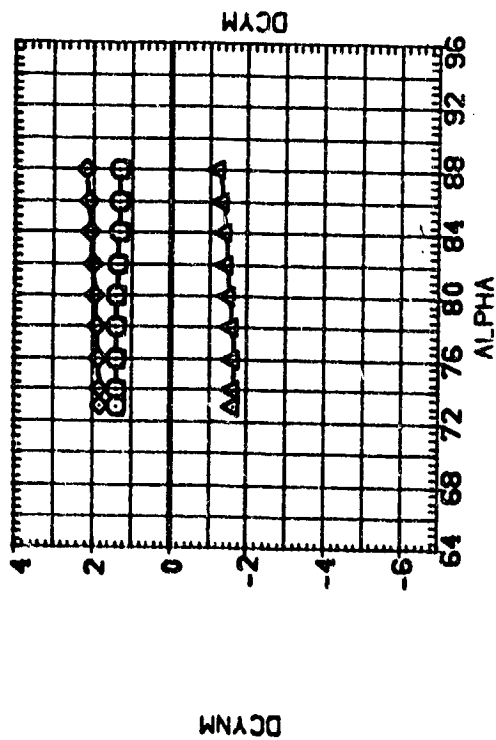
22-111



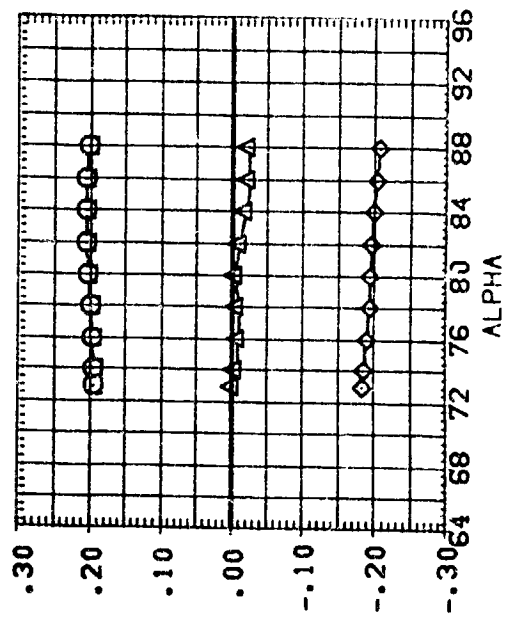
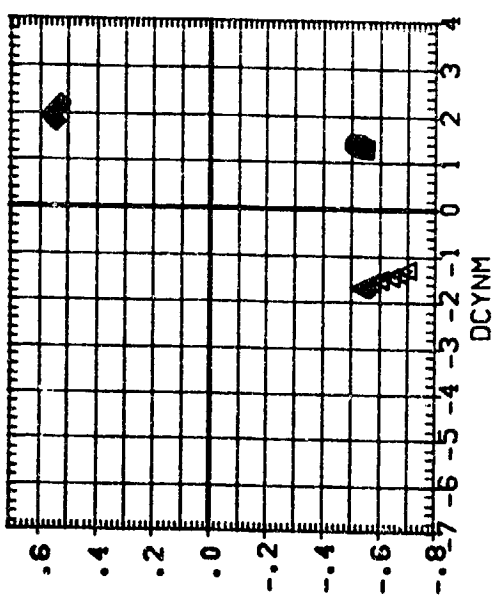
STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT

$$0.90 \text{ MACH} =$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C79632) HSPC 554 (SAS) PRR/SRB (NO GRIT)
 (C79632) HSPC 554 (SAS) PRR/SRB (NO GRIT)
 (C79632) HSPC 554 (SAS) PRR/SRB (NO GRIT)



BETA DELPHI FUDSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.200 1.200 BREP 0.3030 50.1M.
 0.000 50.000 1.200 1.200 LREF 0.8000 1MCH
 0.000 135.000 1.200 1.200 XREF 0.8000 1MCH
 YMRP 6.0810 1MCH
 ZMRP 0.0000
 SCALE 0.0049

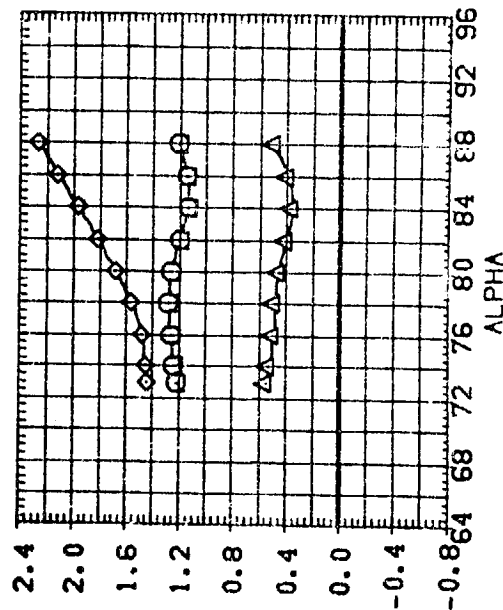
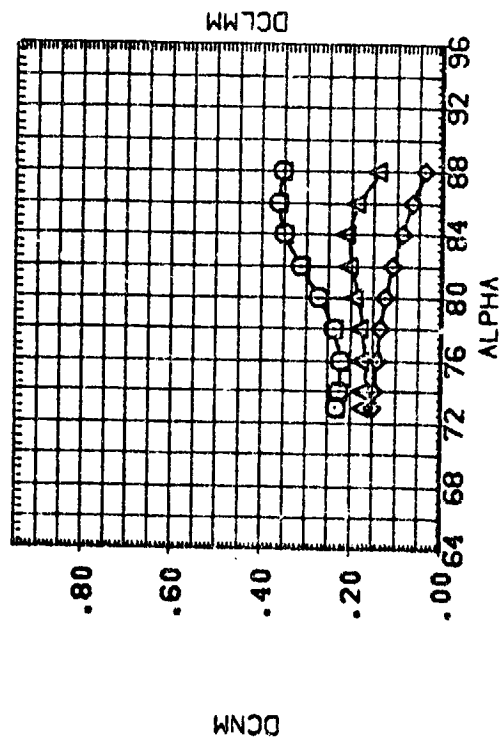
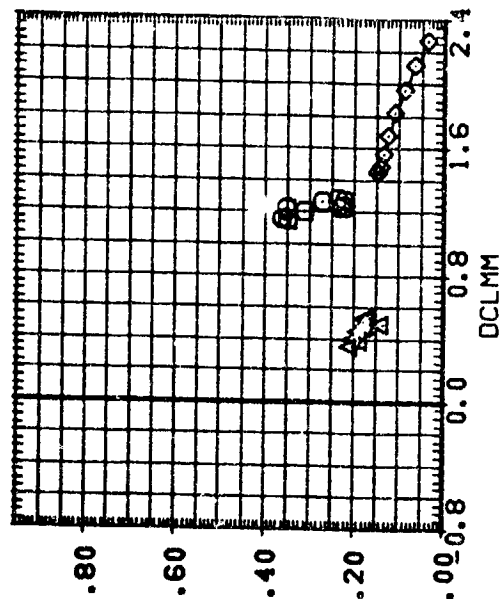
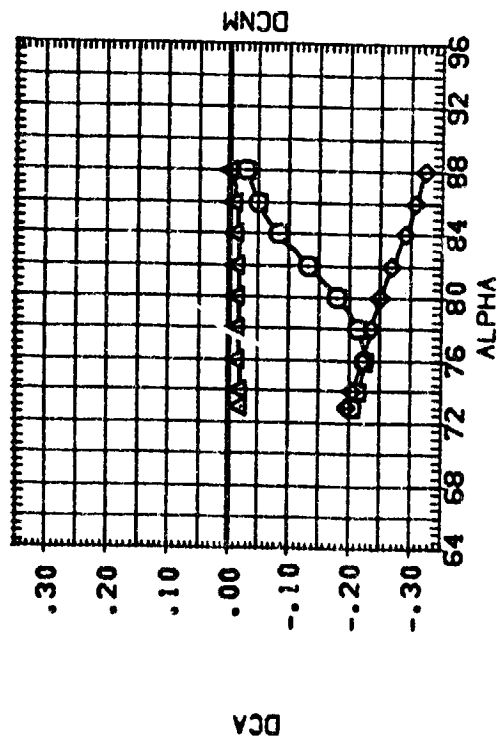


STRAKE EFFECTIVENESS - 2 TWO CALIBER STRAKES, 1 FWD AND 1 AFT

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C79H1E) MSFC 554 (SA1P) PRR/SRB (NO GRIT)
 (C79H3E) MSFC 554 (SA1P) PRR/SRB (NO GRIT)
 (C79H5E) MSFC 554 (SA1P) PRR/SRB (NO GRIT)

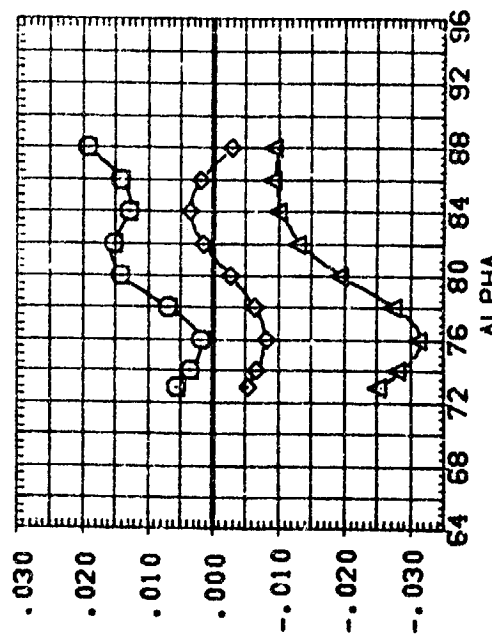
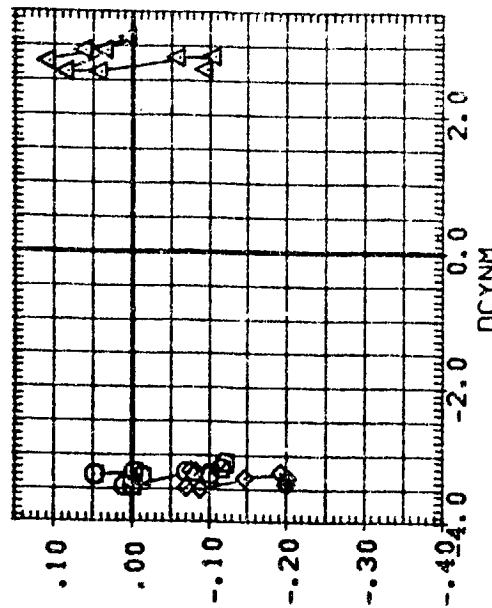
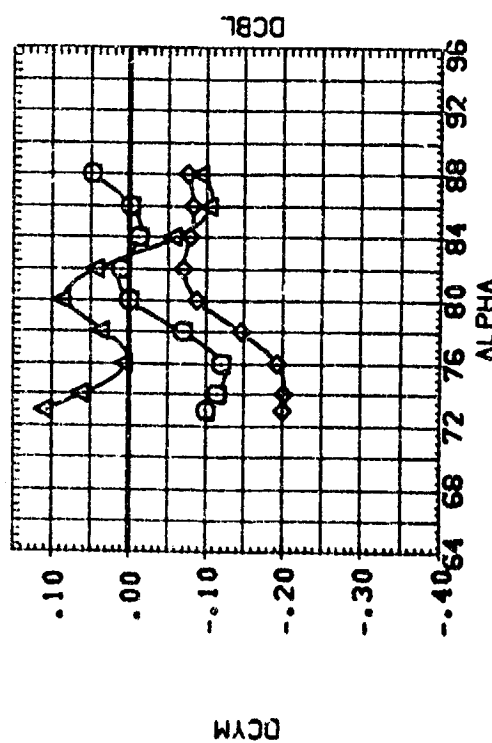
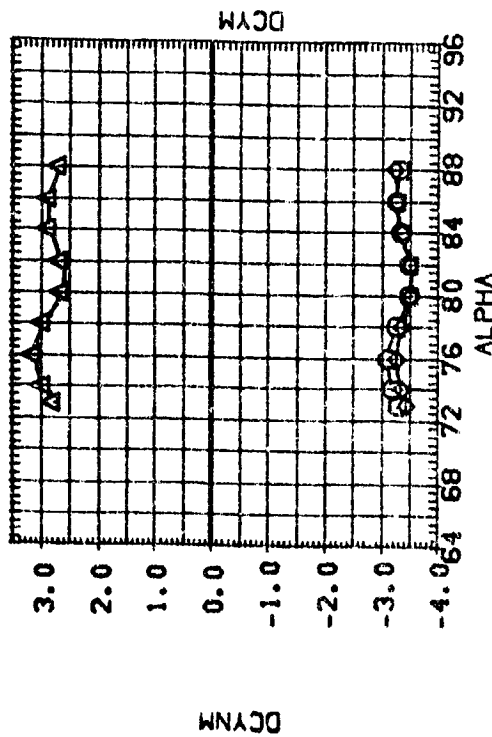
BETA DELPHI PLOSTK APTSTK REFERENCE INFORMATION
 0.000 0.900 2.100 2.100 SREF 0.5030 86 IN.
 0.000 42.132 2.100 2.100 LREF 0.8000 1 INCH
 0.000 90.180 2.100 2.100 SREF 0.8000 1 INCH
 ZMRP 6.0610 1 INCH
 ZMRP 0.3000
 ZMRP 0.0000
 SCALE 0.0049



STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT
 (B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CPH12) WSPC 554 (SALP) PRR/SRB (NO GRIT)
 (CPH12) WSPC 554 (SALP) PRR/SRB (NO GRIT)
 (CPH12) WSPC 554 (SALP) PRR/SRB (NO GRIT)

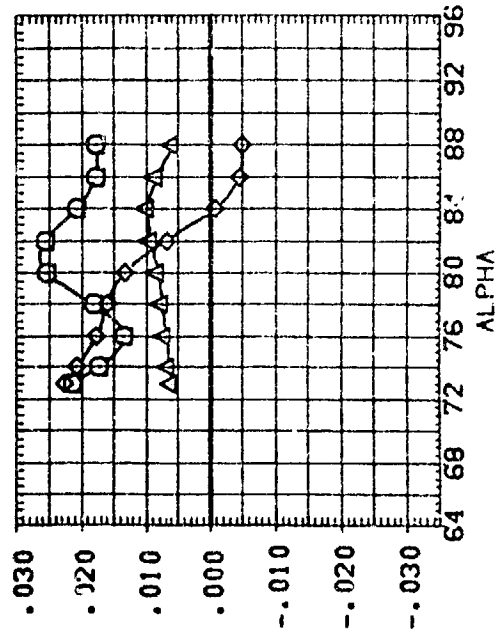
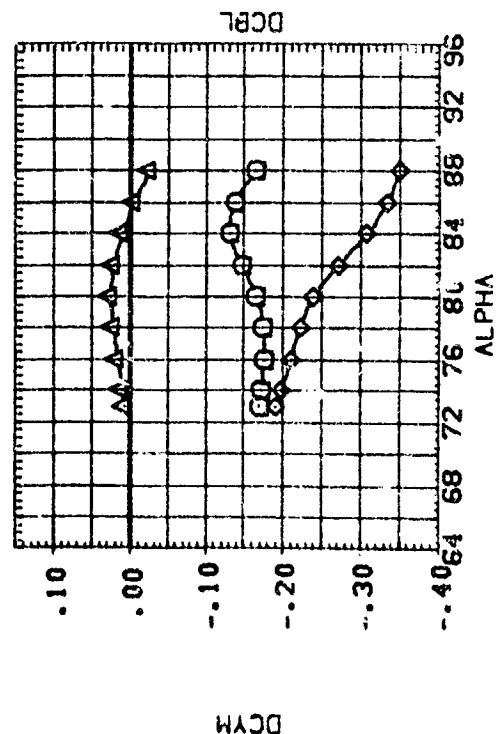
BETA DELPHI PMSTK APTSTK REFERENCE INFORMATION
 0.000 0.900 2.100 2.100 BREF 0.5030 59. IN.
 0.000 45.135 2.100 2.100 LREF 0.8000 1 INCH
 0.000 90.180 2.100 2.100 BREF 0.8000 1 INCH
 YMRP 6.0810 1 INCH
 YMRP 0.0000
 ZMRP 0.0049
 SCALE



STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT

(A)MACH = .90

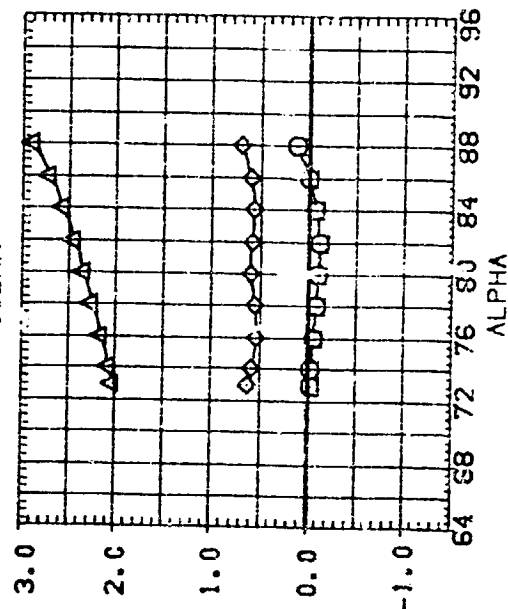
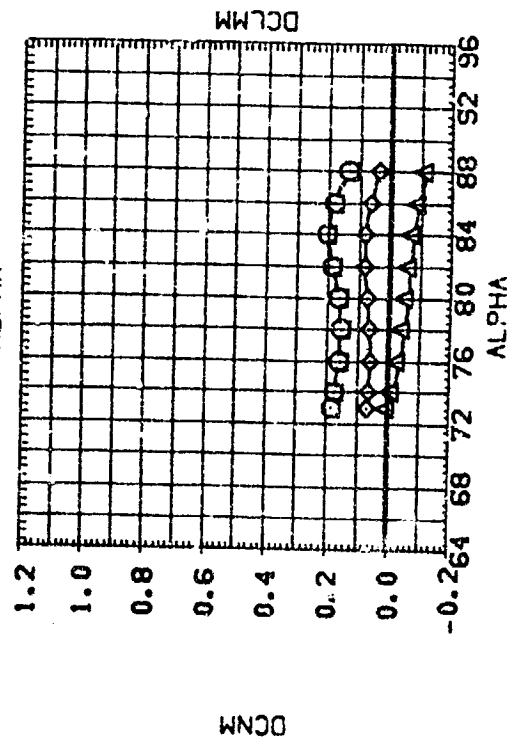
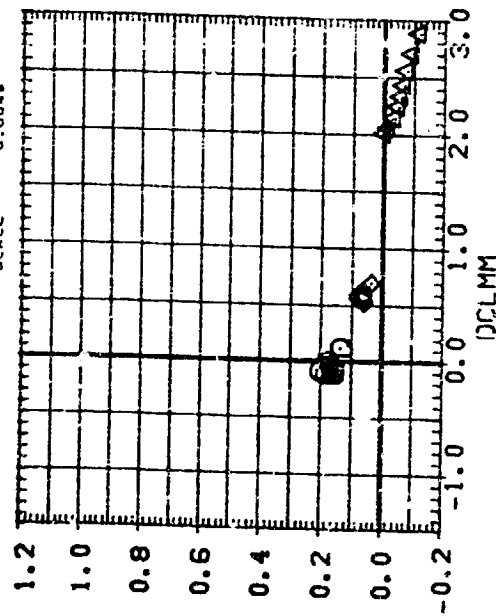
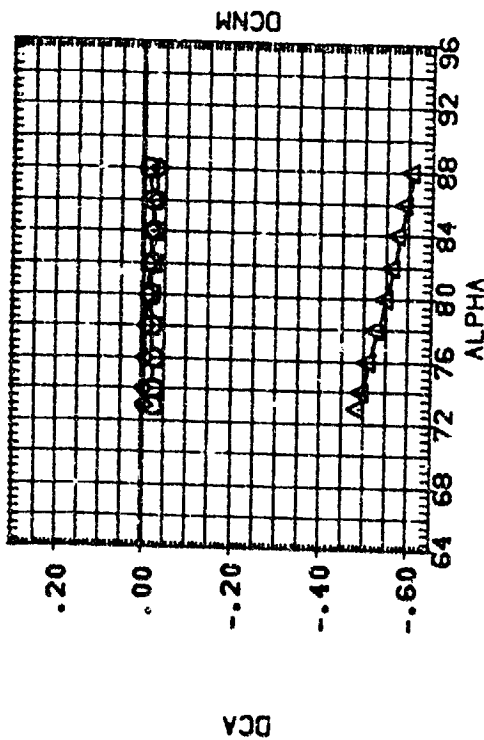
BETA	DPLBHI	FWD03TH	AFT03K	REFERENCE INFORMATION	W IN.
0.000	0.900	2.100	2.100	ZMRP	0.3030
0.000	0.710	2.100	2.100	ZMRP	0.6000
0.000	0.810	2.100	2.100	ZMRP	0.6010
				ZMRP	0.0000
				ZMRP	0.0000
				SCALE	0.0049



STRAKE EFFECTIVENESS - 4 ONE CALIBER STRAKES, 2 FWD AND 2 AFT

(B)MACH = 3.48

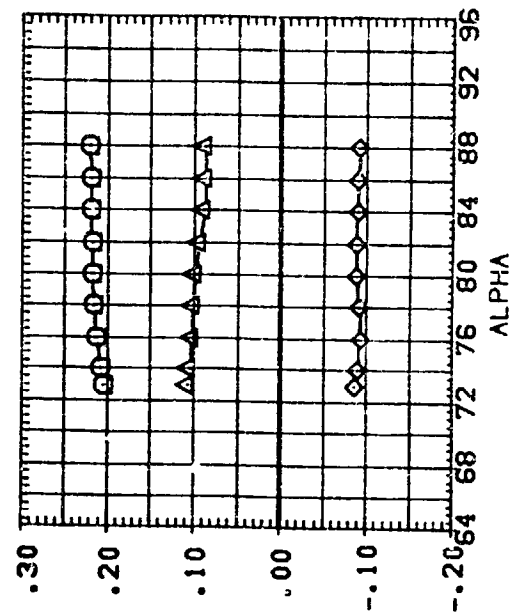
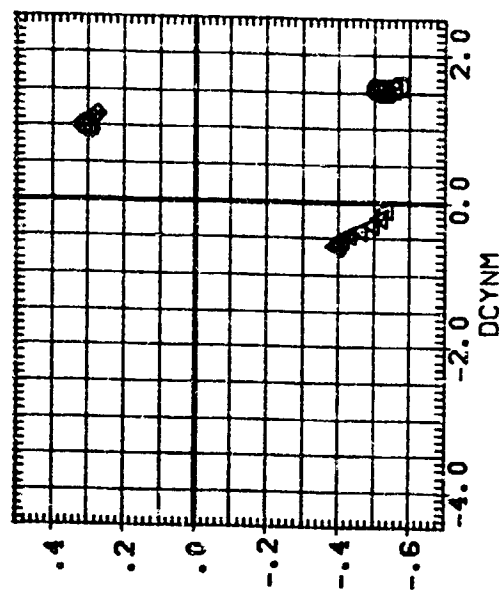
DATA KEY SYMBOL	CONFIGURATION DESCRIPTION	BETA	DELPHI	PMOSTK	APYSTK	REFERENCE INFORMATION
(C79132)	NSPC 334 (SALP) PRN/ERN (NO SRIT)	0.000	45.000	1.100	1.200	SRF 0.2030 50.1M.
(C79132)	NSPC 334 (SALP) PRN/ERN (NO SRIT)	0.000	90.000	1.100	1.200	LRF 0.8000 1MCH
(C79132)	NSPC 334 (SALP) PRN/ERN (NO SRIT)	0.000	135.000	1.100	1.200	RRF 0.8000 1MCH
						YMR 4.0816 1MCH
						ZMR 0.10000
						SCALE 0.0045



STRAKE EFFECTIVENESS - 1 ONE CALIBER FWD AND 1 TWO CALIBER AFT

(B)MACH = 3.48

REFERENCE INFORMATION					
BETA	DELPHI	PWDBTK	APT3TK	SREP	30 IN.
0.000	48.000	1.100	1.800	LREP	INCH
0.000	90.000	1.100	1.800	SREP	INCH
0.000	135.000	1.100	1.800	ZMRP	INCH
				ZMRP	0.0010
				ZMRP	0.0000
				SCALE	0.0049

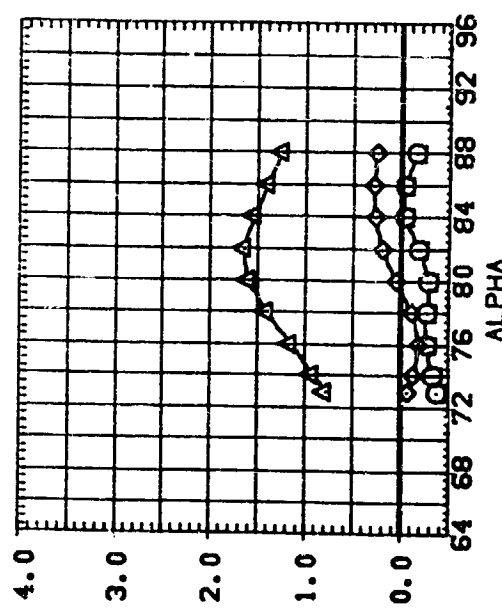
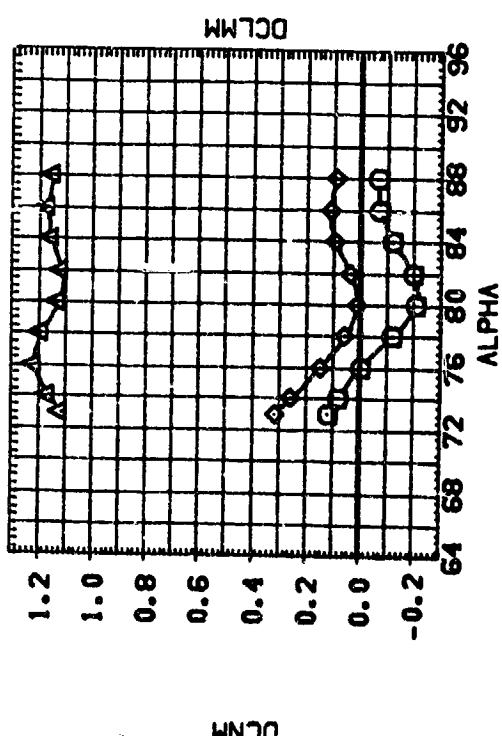
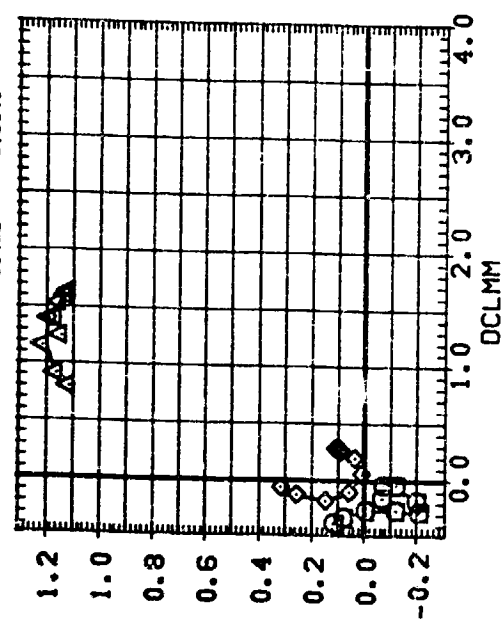
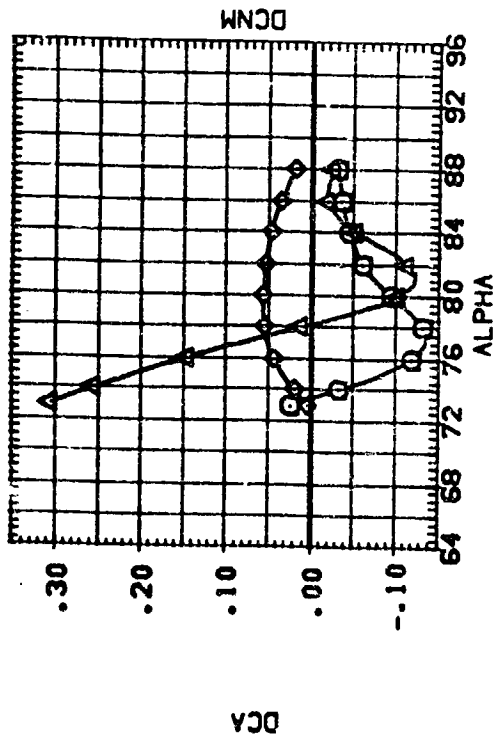


STRAKE EFFECTIVENESS - 1 ONE CALIBER FWD AND 1 TWO CALIBER AFT

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C79J3C) NSPC 334 (BALP) PRP/BRB (NO GRIT)
 (C79J3C) NSPC 334 (BALP) PRP/BRB (NO GRIT)
 (C79J3C) NSPC 334 (BALP) PRP/BRB (NO GRIT)

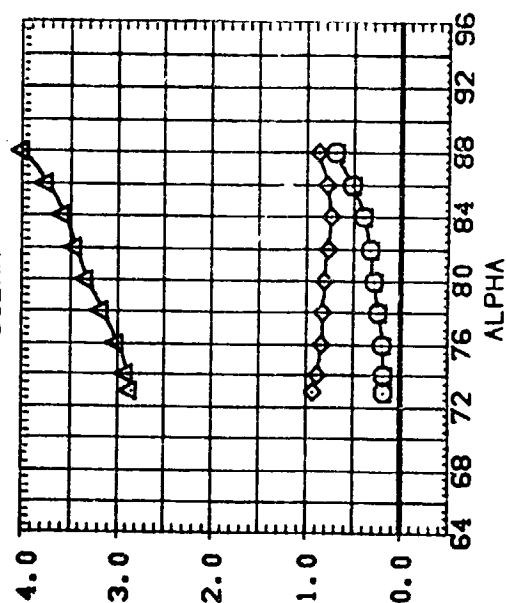
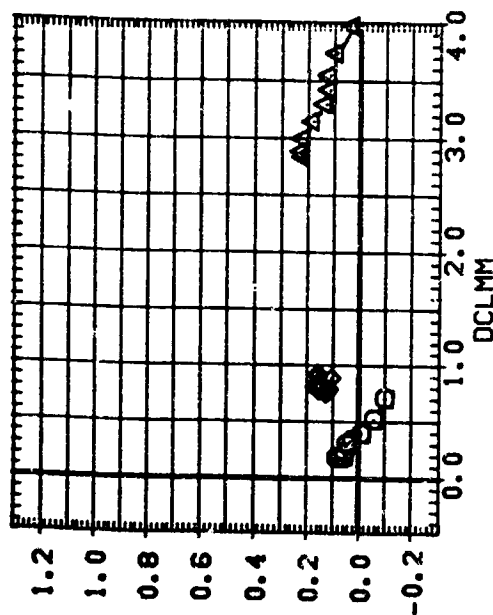
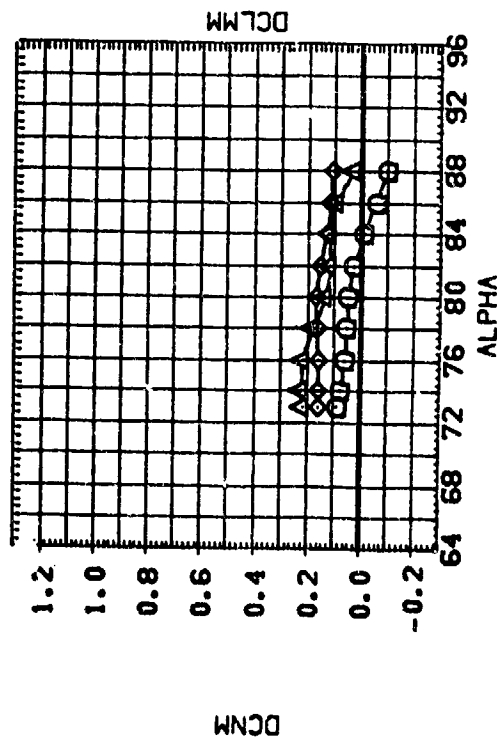
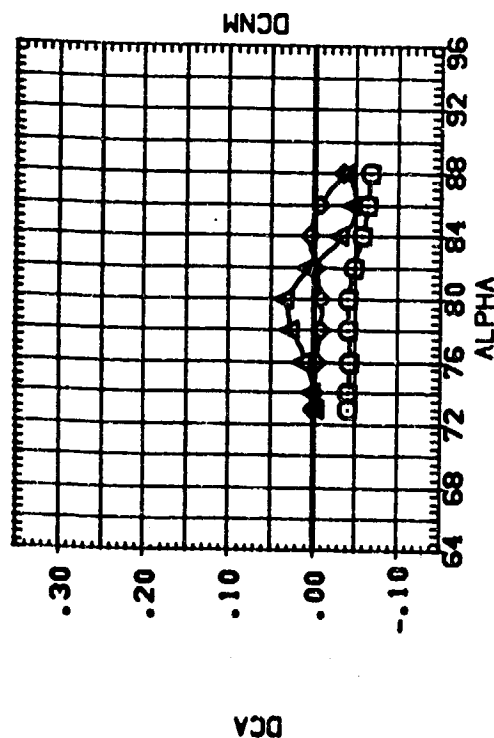
NETA DELPHI FWDSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.200 1.100 SREP 0.3030 59.1IN.
 0.000 50.000 1.200 1.100 LREP 0.8000 1INCH
 0.000 135.000 1.200 1.100 SREP 0.8000 1INCH
 XMRP 6.0810 1INCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

(A)MACH = .90

WSPC 554 (3A1P) PRR/SRB (NO CRIT)
WSPC 554 (3A1P) PRR/SRB (NO CRIT)
WSPC 554 (3A1P) PRR/SRB (NO CRIT)

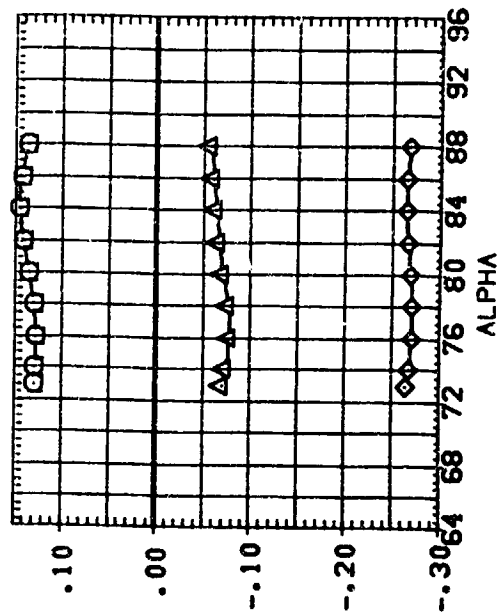
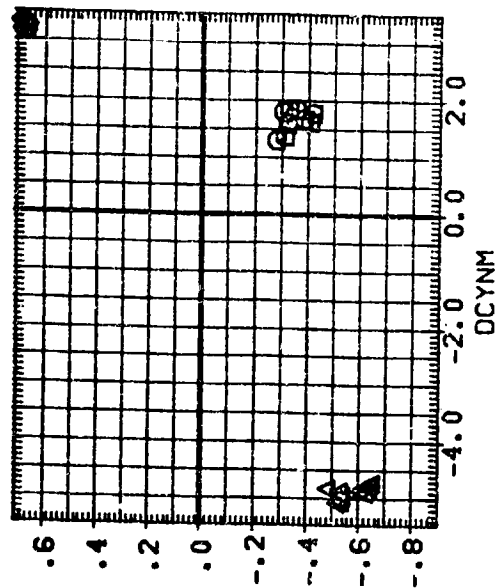
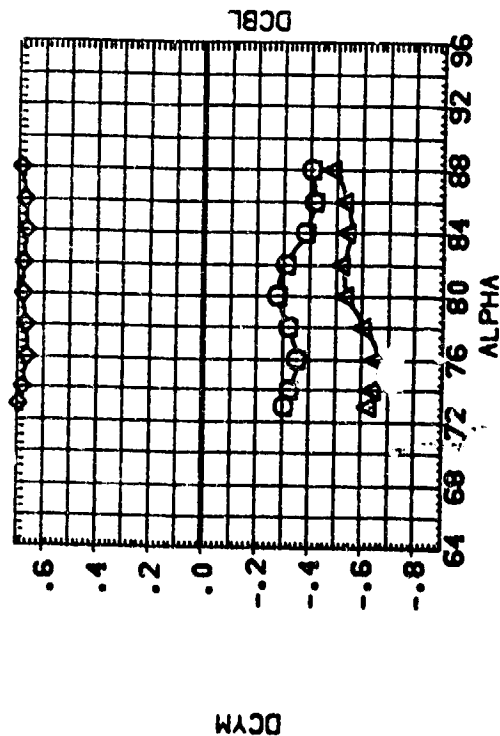
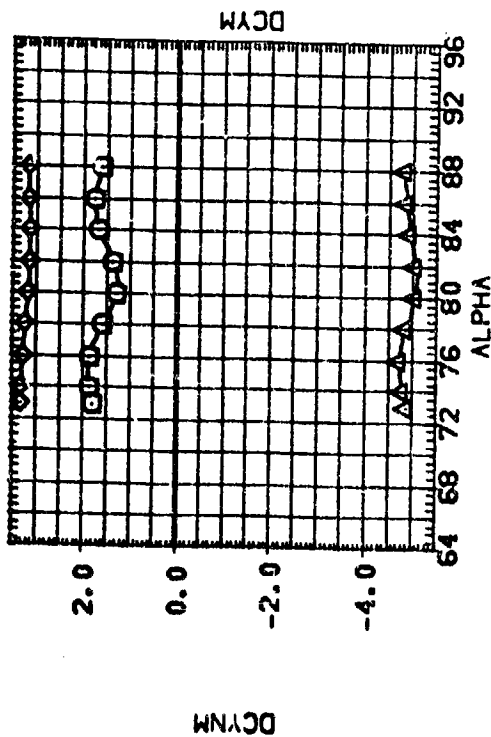


STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C99J32) NSPC 534 (8A1P) PRN/SRB (NO GRIT)
 (C99J32) NSPC 534 (8A1P) PRN/SRB (NO GRIT)
 (C99J32) NSPC 534 (8A1P) PRN/SRB (NO GRIT)

BETA DELPHI FWOSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.200 1.100 BREF 0.5030 39.1M.
 0.000 90.000 1.200 1.100 LREF 0.8000 1NCH
 0.000 135.000 1.200 1.100 BREF 0.8000 1NCH
 XMRP 0.010 1NCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049

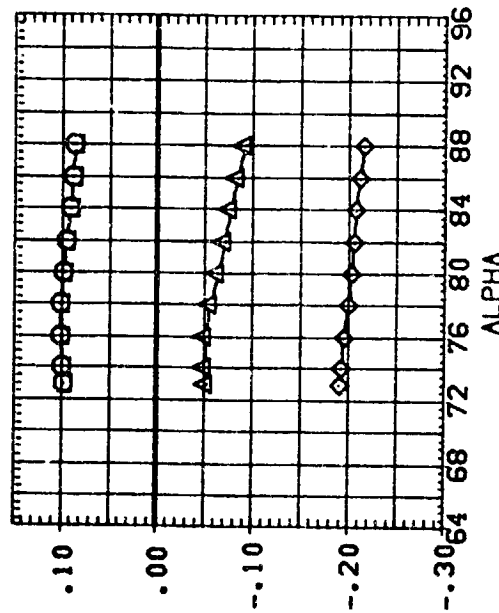
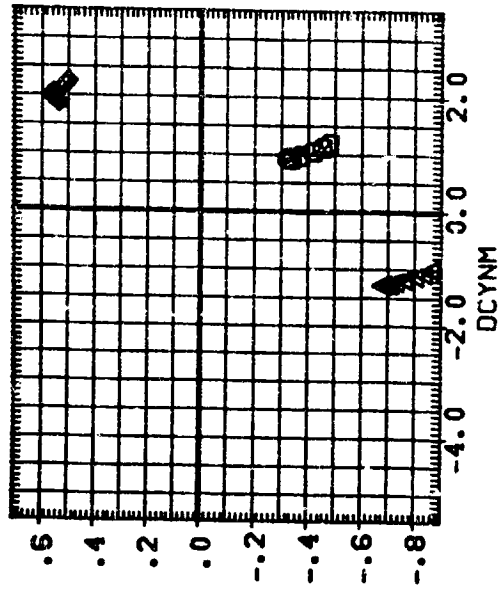
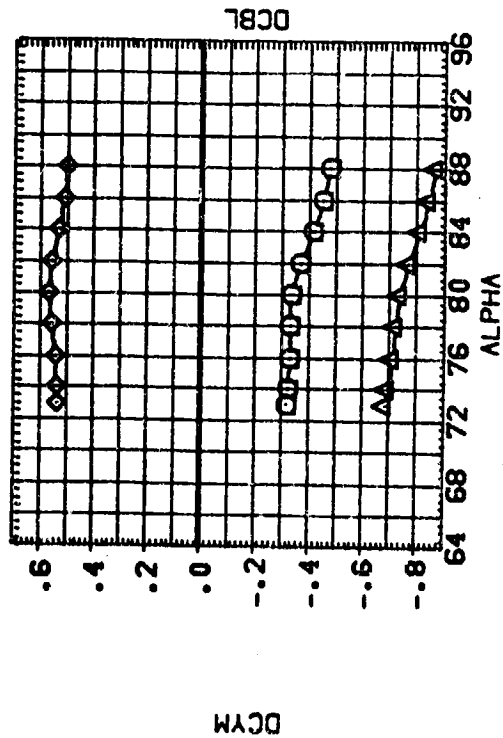
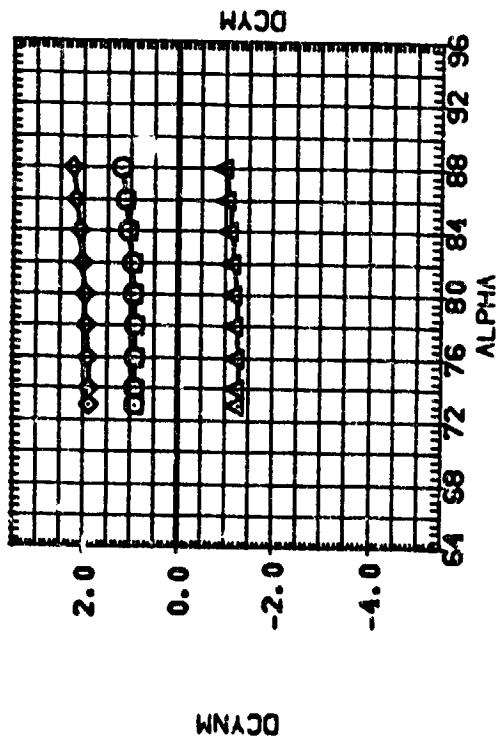


STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C79J3E) WSPC 554 (BA1P) PRN/SRB (NO GRIT)
 (C79J3E) WSPC 554 (BA1P) PRN/SRB (NO GRIT)
 (C79J3E) WSPC 554 (BA1P) PRN/SRB (NO GRIT)

BETA DELPHI PWO3TK APTATK REFERENCE INFORMATION
 0.000 45.000 1.200 1.100 SREF 0.5030 88.1IN.
 0.000 90.000 1.200 1.100 LREF 0.8000 1INCH
 0.000 135.000 1.200 1.100 BREF 0.8000 1INCH
 XMRP 9.0810 1INCH
 ZMRP 0.0000
 SCALE 0.0049



STRAKE EFFECTIVENESS - 1 TWO CALIBER FWD AND 1 ONE CALIBER AFT

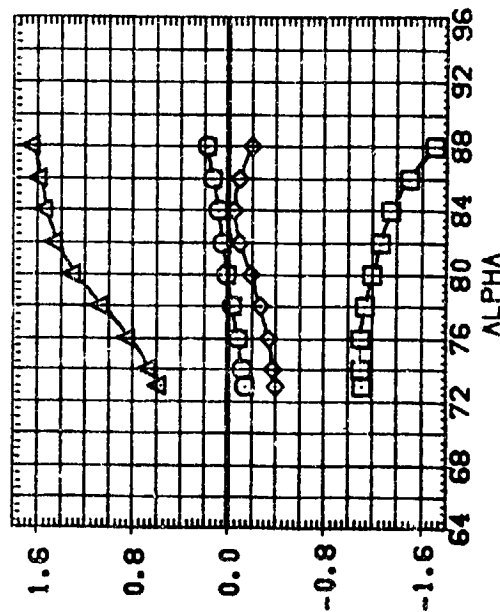
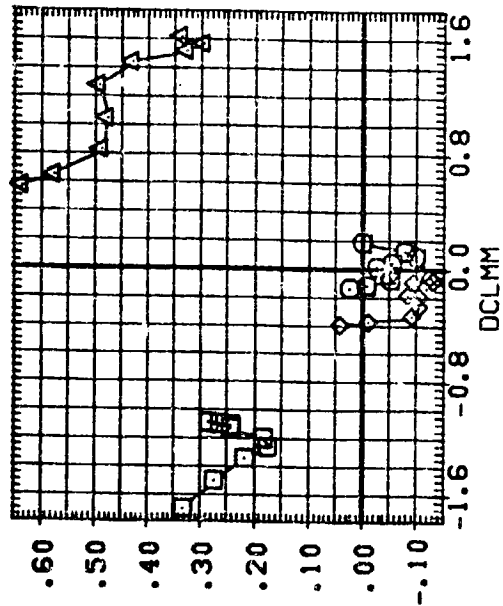
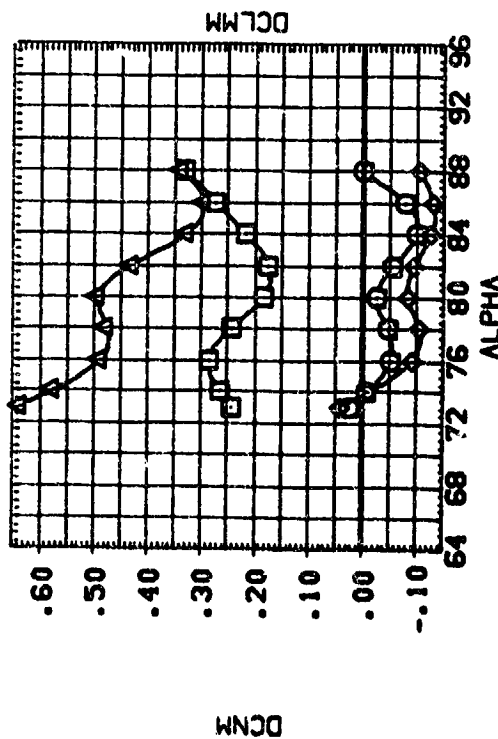
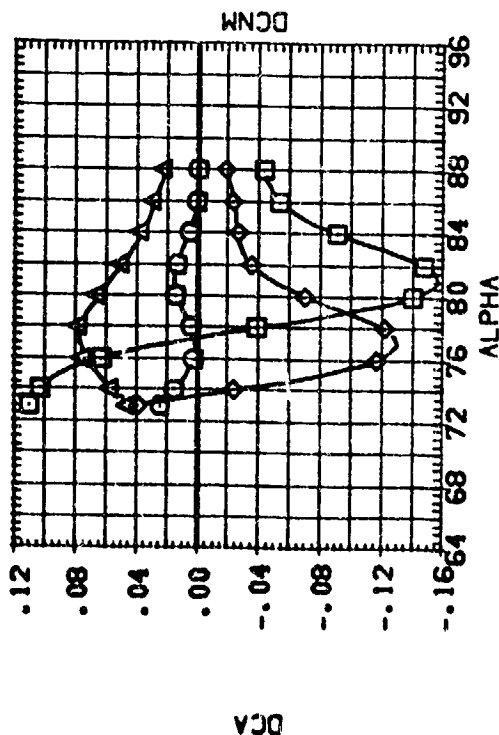
(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C943E)	WSPC 534 (3A1P) PRR/SRR (NO GRIT)
(C943E)	WSPC 534 (3A1P) PRR/SRR (NO GRIT)
(C943E)	WSPC 534 (3A1P) PRR/SRR (NO GRIT)
(C943E)	WSPC 534 (3A1P) PRR/SRR (NO GRIT)

BETA DELPHI PWOSTR APTSTR REFERENCE INFORMATION

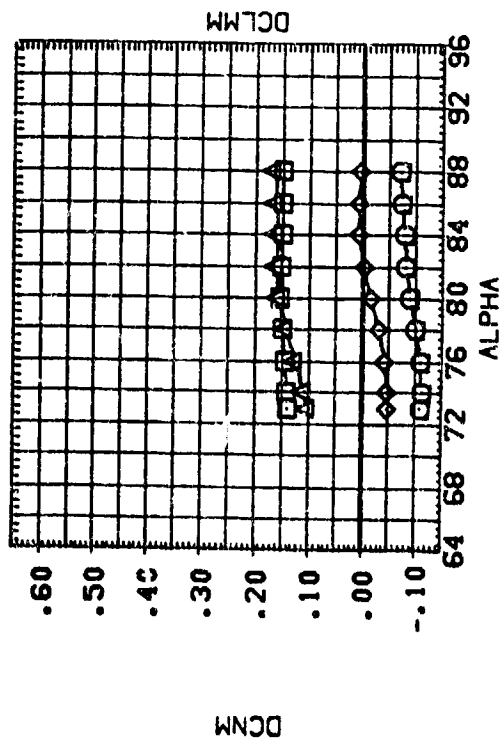
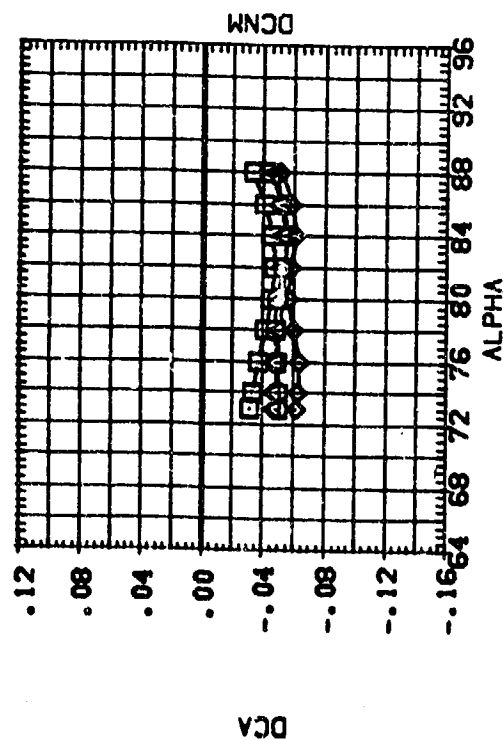
BETA	DELPHI	PWOSTR	APTSTR	REFERENCE INFORMATION
0.000	45.000	1.100	0.000	SREP 0.3030 39.1M.
0.000	90.000	1.100	0.000	LREP 0.8000 1NCH
0.000	45.000	0.000	1.100	SREP 0.8000 1NCH
0.000	90.000	0.000	1.100	LREP 0.8010 1NCH
				ZRRP 0.0000
				ZRRP 0.0000
				SCALE 0.0049



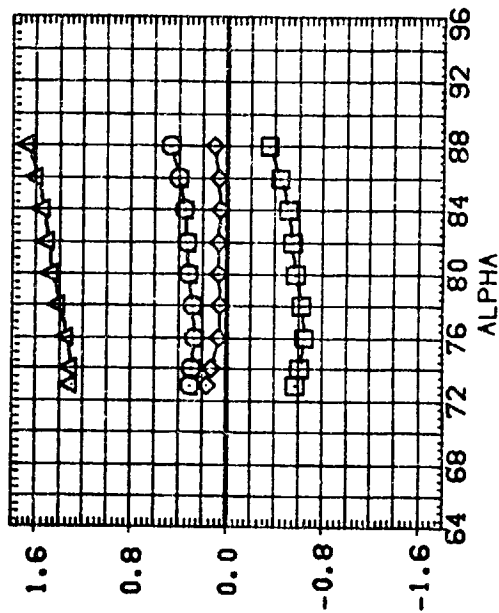
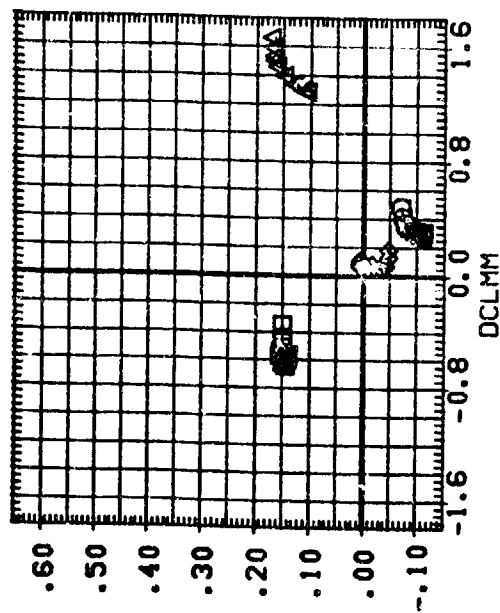
STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE

(AJMACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C79L3E) NSPC 334 (BALP) PER/SBS (NO GRIT)
 (C79L3E) NSPC 334 (BALP) PER/SBS (NO GRIT)
 (C79H3E) NSPC 334 (BALP) PER/SBS (NO GRIT)
 (C79H3E) NSPC 334 (BALP) PER/SBS (NO GRIT)



BETA DELPHI FUGSTK APTSK REFERENCE INFORMATION
 0.000 45.000 1.100 0.000 3REF 0.5030 58.1M
 0.000 90.000 1.100 0.000 LREF 0.8000 1NCH
 0.000 45.000 0.000 1.100 BREF 0.8000 1NCH
 0.000 90.000 0.000 1.100 YMRP 6.0810 1NCH
 ZMRP 0.0000
 SCALE 0.0049

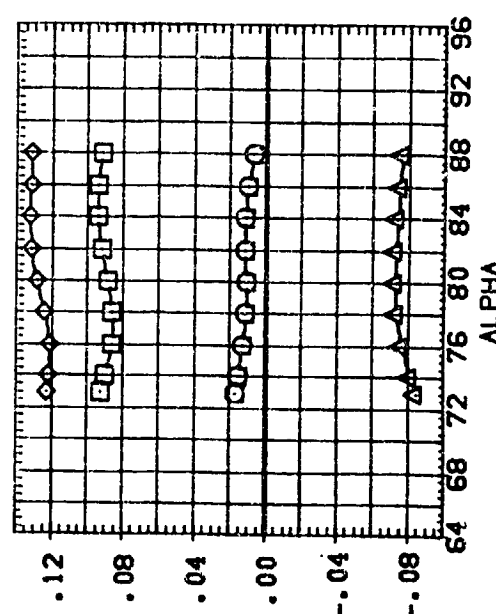
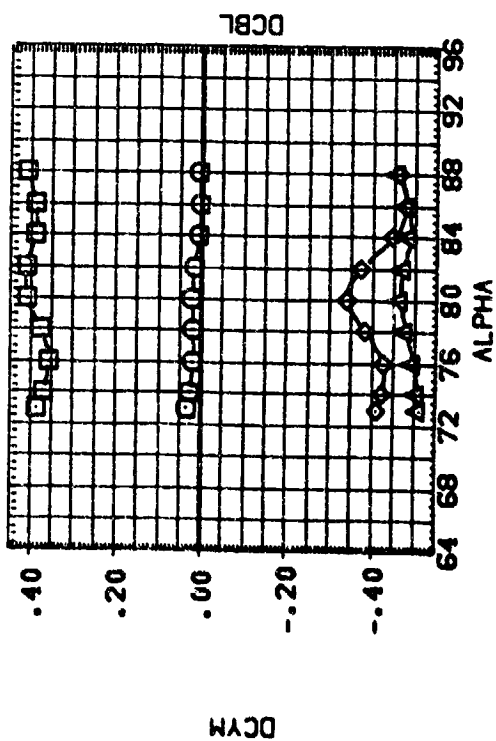
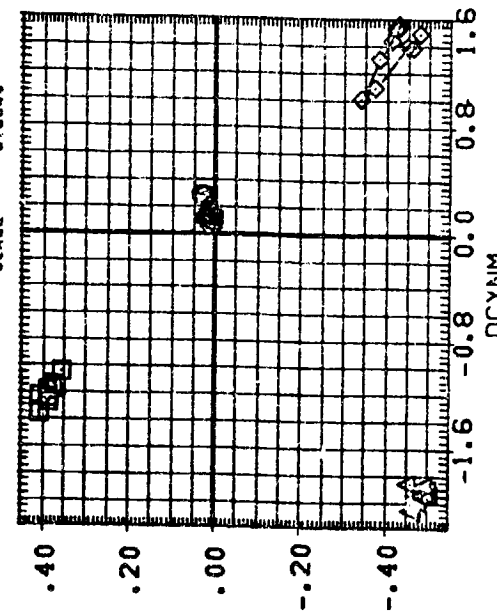
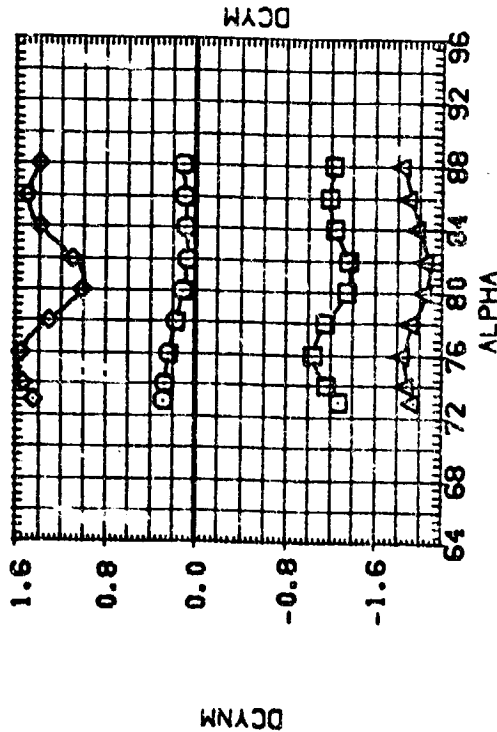


STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C/BL3E) HSPC 554 (BA1P) PRN/SRB (NO GRIT)
 (C/BL3E) HSPC 554 (BA1P) PRN/SRB (NO GRIT)
 (C/BL3E) HSPC 554 (BA1P) PRN/SRB (NO GRIT)
 (C/BL3E) HSPC 554 (BA1P) PRN/SRB (NO GRIT)

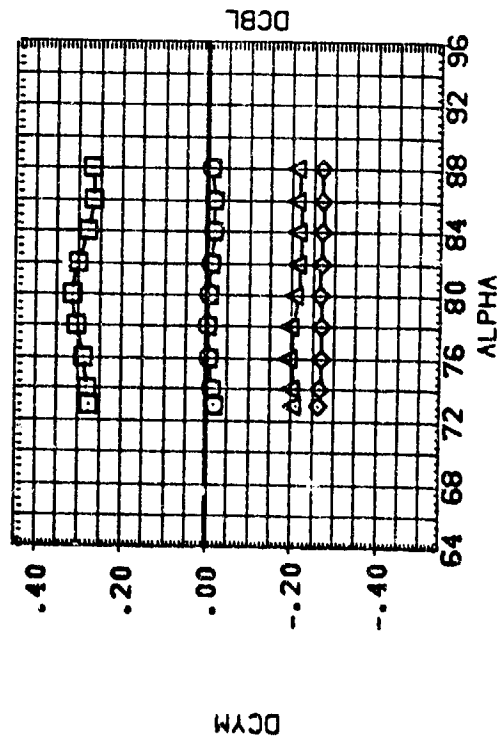
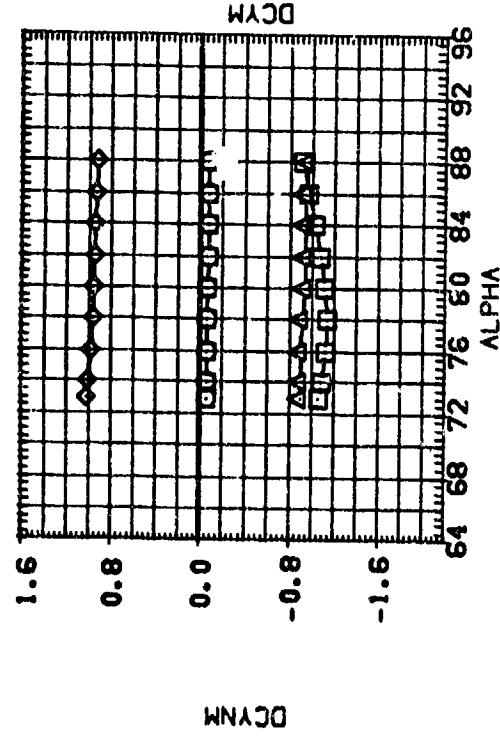
BETA DELPHI P/OSTK APTSTK REFERENCE INFORMATION
 0.000 45.000 1.100 0.000 SRP 0.5030 90.1M.
 0.000 90.000 1.100 0.000 LRF 0.6000 INCH
 0.000 45.000 1.100 0.000 BRP 0.6000 INCH
 0.000 90.000 1.100 0.000 XRP 0.6010 INCH
 0.000 0.0000 0.0000 0.0000 YRP 0.0000
 0.0000 0.0000 0.0000 0.0000 ZRP 0.0000
 SCALE 0.0048



STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE
 (A)MACH = .90

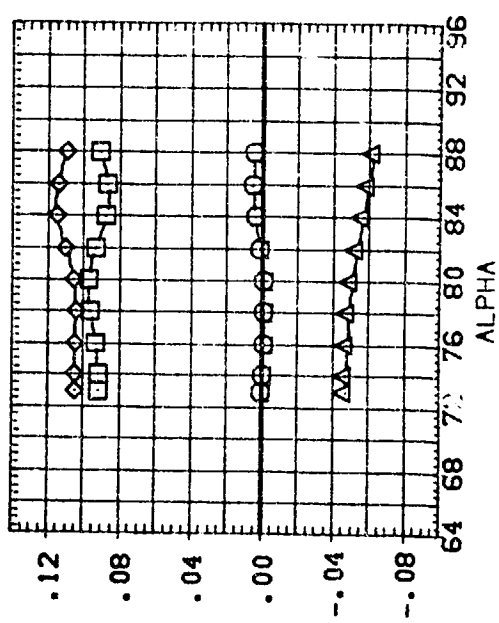
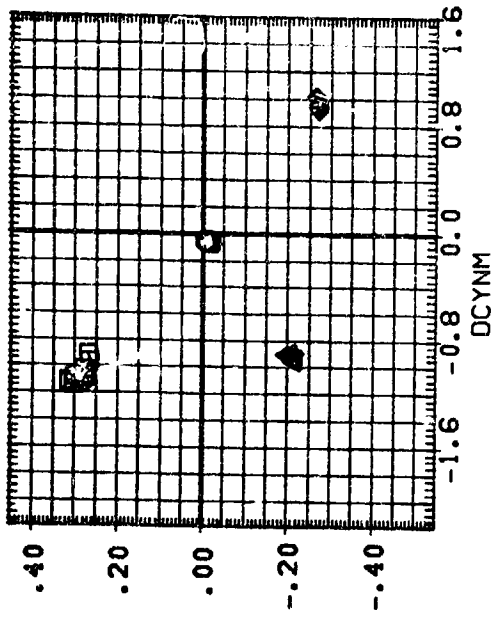
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(C96L3E)	NSPC 334 (SALP)	PRR/SRB (NO GRIT)
(C96L3E)	NSPC 334 (SALP)	PRR/SRB (NO GRIT)
(C96M3E)	NSPC 334 (SALP)	PRR/SRB (NO GRIT)
(C96M3E)	NSPC 334 (SALP)	PRR/SRB (NO GRIT)



BETA DELPHI FMO3TK APTSTK REFERENCE INFORMATION

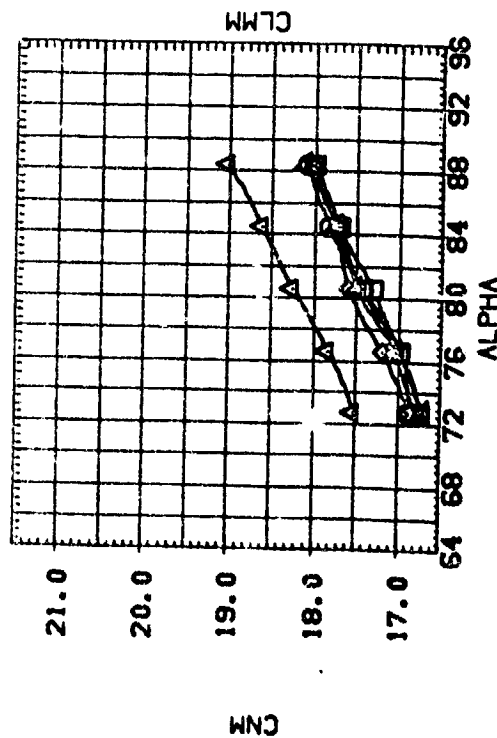
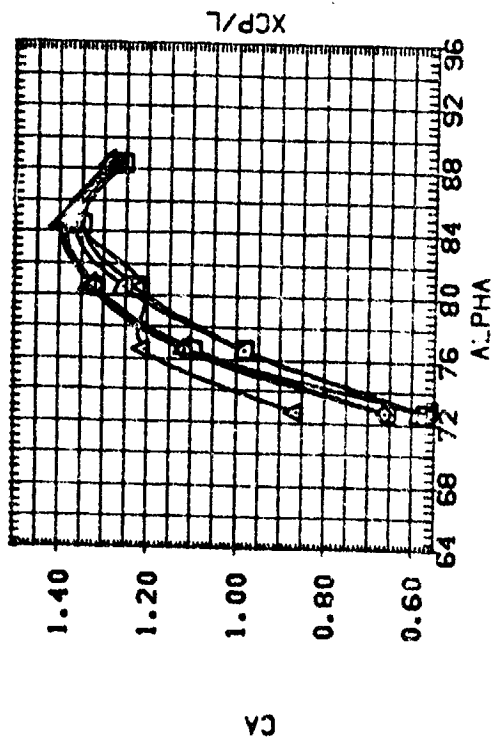
0.000	45.000	1.100	0.000	SRF	0.5030	INCH
0.000	90.000	1.100	0.000	LRP	0.8000	INCH
0.000	45.000	0.000	1.100	SRP	0.8000	INCH
0.000	90.000	0.000	1.100	MRP	0.8010	INCH
				YMRP	0.0000	
				ZMRP	0.0000	
				SCALE	0.0048	



STRAKE EFFECTIVENESS - 1 ONE CALIBER STRAKE
(B)MACH = 3.48

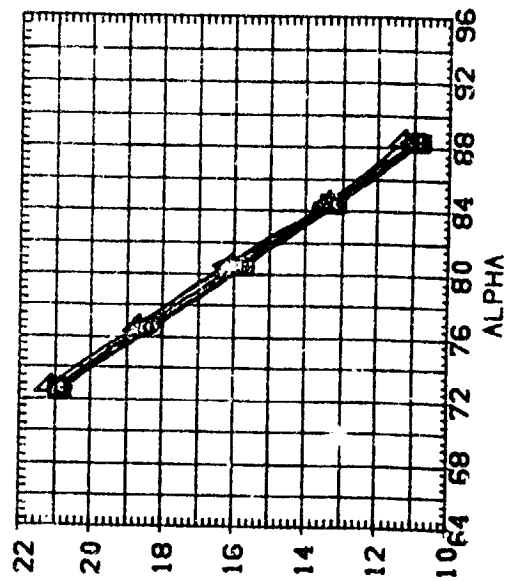
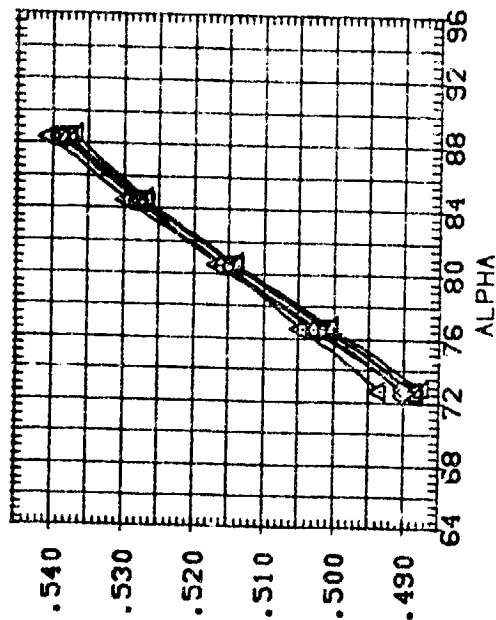
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(E7953E)	MSPC 534 (BALP)	PRR/SRB (NO GRIT)
(E7954E)	MSPC 534 (BALP)	PRR/SRB (NO GRIT)
(E7955E)	MSPC 534 (BALP)	PRR/SRB (NO GRIT)
(E7956E)	MSPC 534 (BALP)	PRR/SRB (NO GRIT)
(E7957E)	MSPC 534 (BALP)	PRR/SRB (NO GRIT)
(E7958E)	MSPC 534 (BALP)	PRR/SRB (NO GRIT)



BETA PHI PMOSTK APTSTK REFERENCE INFORMATION

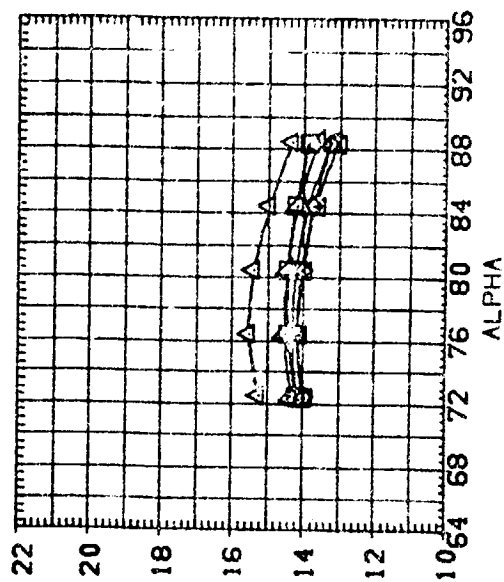
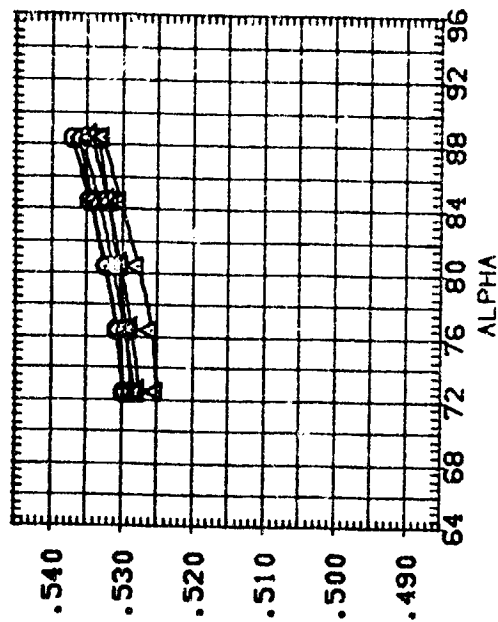
0.000	45.000	1.200	1.200	SRFP	0.5030	50.1M
0.000	0.000	2.100	2.100	LRFP	0.8000	INCH
0.000	45.000	1.100	1.100	SRFP	0.8000	INCH
0.000	45.000	1.200	1.100	MRFP	6.0810	INCH
0.000	45.000	1.100	1.100	YMRP	0.0000	
0.000	45.000			ZMRP	0.0000	
				SCALE	0.0049	



STRAKE COMPARISON - PHI = 45 DEGREES
(A)MACH = .90

[illegible]
$$(B)MACH = 3.48$$

BETA		PHI		FMOISTK		APTSK		REFERENCE INFORMATION	
0.000	45.000	0.000	45.000	1.200	1.200	1.200	1.200	BREF	0.5030
0.000	0.900	0.000	0.900	2.100	2.100	2.100	2.100	LREF	0.8000
0.000	45.000	0.000	45.000	1.100	1.100	1.100	1.100	BREF	0.8000
0.000	45.000	0.000	45.000	1.200	1.200	1.200	1.200	YMRP	6.0810
0.000	0.000	0.000	0.000	1.100	1.100	1.100	1.100	ZMRP	0.0000
0.000	45.000	0.000	45.000	1.100	1.100	1.100	1.100	SCALE	0.0049



DATA SET SYMBOL CONFIGURATION DESCRIPTION

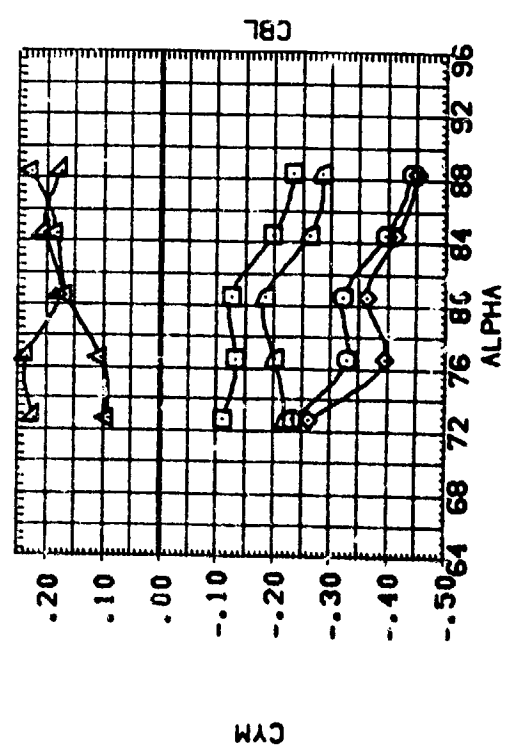
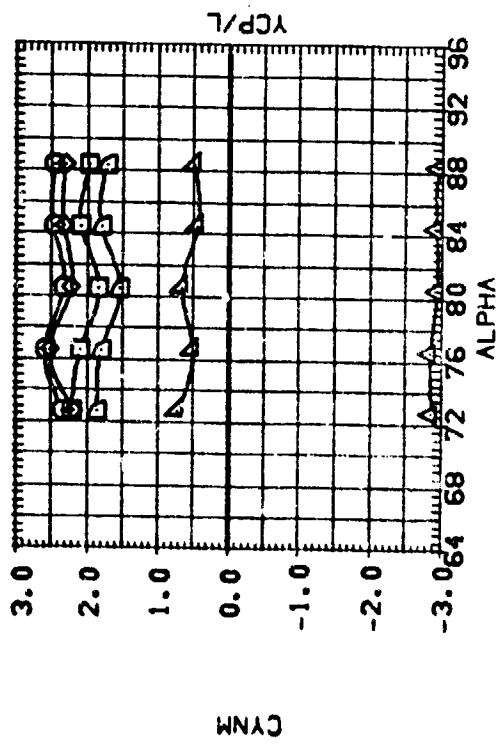
(E79012C) NSPC 534 (SA1P) PRP/SRS (NO CRIT)

(E79012C) NSPC 534 (SA1P) PRP/SRS (NO CRIT)

(E79012C) NSPC 534 (SA1P) PRP/SRS (NO CRIT)

(E79012C) NSPC 534 (SA1P) PRP/SRS (NO CRIT)

(E79012C) NSPC 534 (SA1P) PRP/SRS (NO CRIT)



BETA PHI PASTK APSTK REFERENCE INFORMATION

0.000 45.000 1.200 1.000 SREF 0.5030 56.1M

0.000 45.000 2.100 1.100 LREF 0.8000 1NCH

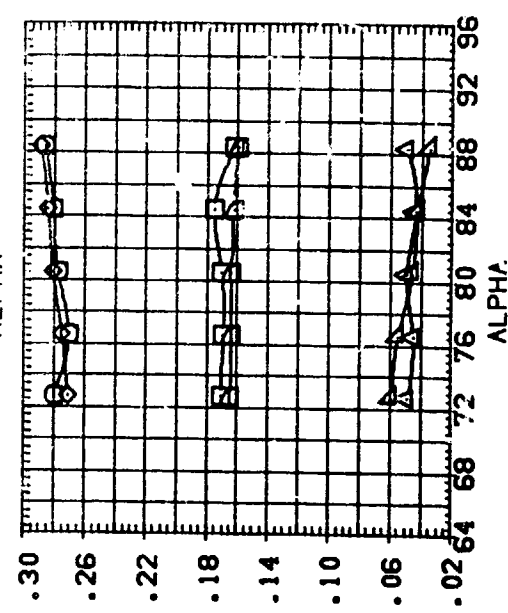
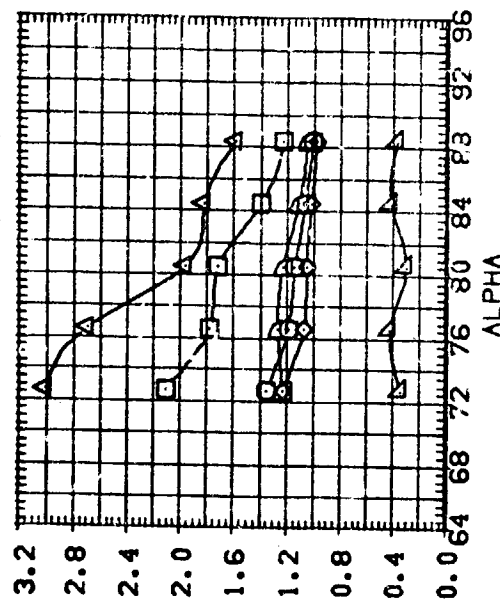
0.000 45.000 1.100 1.200 BREF 0.8000 1NCH

0.000 45.000 1.100 1.100 XMRP 6.0810 1NCH

0.000 45.000 1.100 1.100 YMRP 0.0000 1NCH

0.000 45.000 1.100 1.100 ZMRP 0.0000 1NCH

0.000 45.000 1.100 1.100 SCALE 0.0049

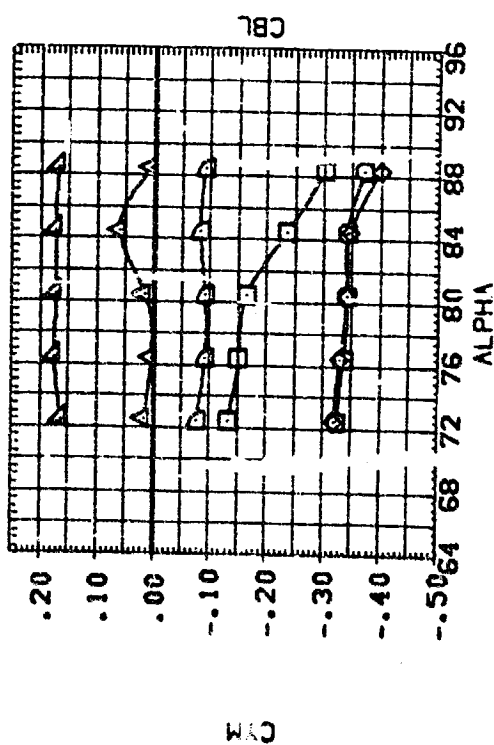
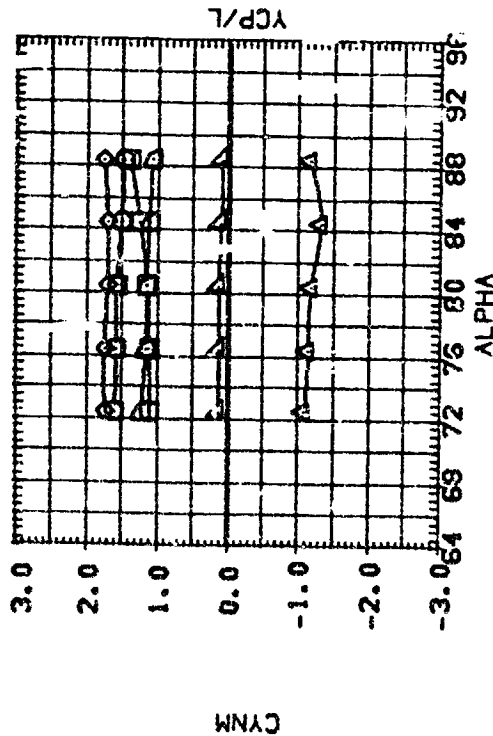


STRAKE COMPARISON - PHI = 45 DEGREES

(A)MACH = .90

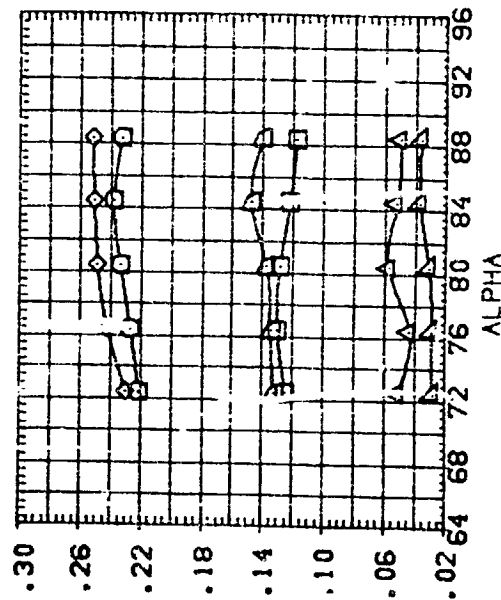
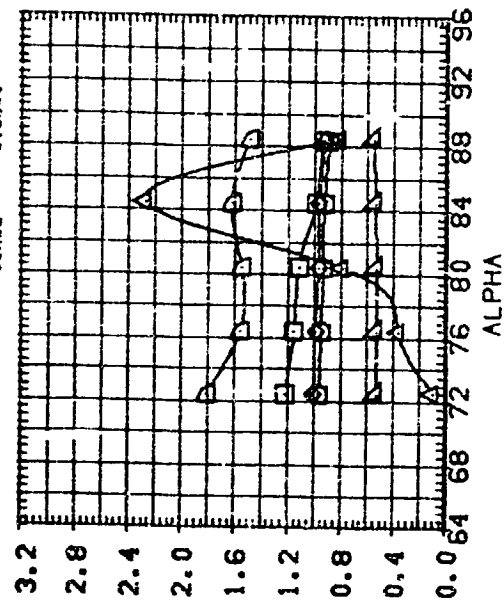
DATA SET SYMBOL COMPIGURATION DESCRIPTION

(E79L1C)	NSPC 324	(SALP)	PRR/328	(NO GRIT)
(E79L1C)	NSPC 324	(SALP)	PRR/328	(NO GRIT)
(E79L1C)	NSPC 324	(SALP)	PRR/328	(NO GRIT)
(E79L1C)	NSPC 324	(SALP)	PRR/328	(NO GRIT)
(E79L1C)	NSPC 324	(SALP)	PRR/328	(NO GRIT)
(E79L1C)	NSPC 324	(SALP)	PRR/328	(NO GRIT)



BETA PHI PABSTK APTSTK REFERENCE INFORMATION

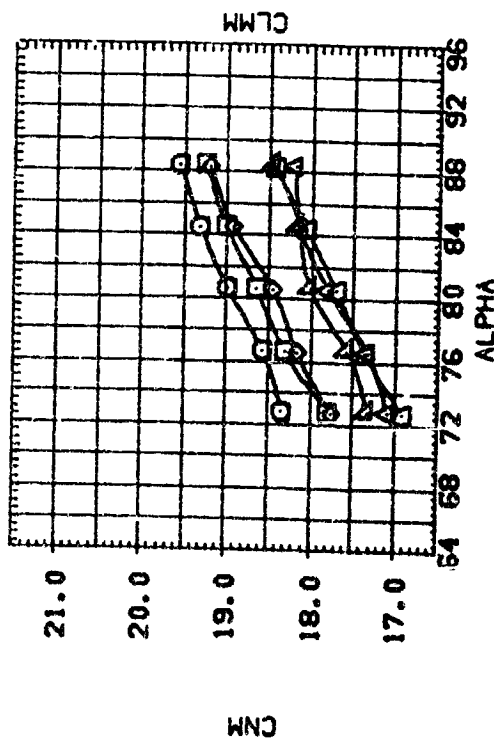
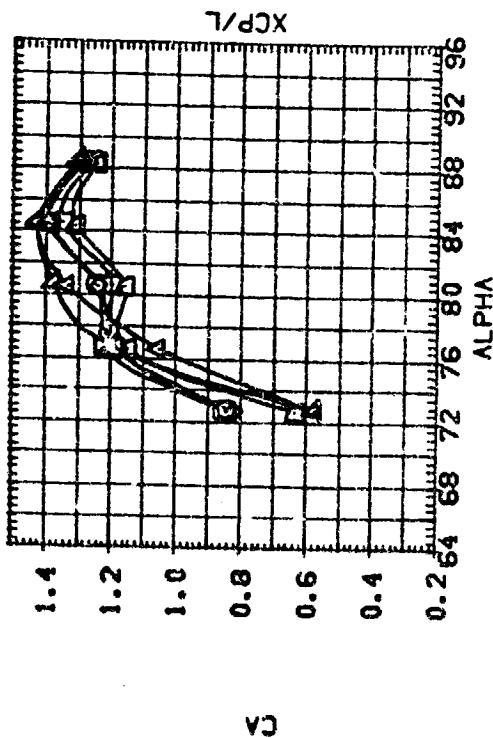
0.07	45.000	1.200	1.200	SREP	0.5030	29.1M
0.07	45.000	1.200	1.200	LREP	0.6000	INCH
0.07	45.000	1.200	1.200	SREP	0.6000	INCH
0.007	45.000	1.200	1.200	XMRP	6.0810	IN-M
0.000	45.000	1.200	1.200	ZMRP	0.0000	
0.000	45.000	1.200	1.200	SCALE	0.0049	



STRAKE COMPARISON - PHI = 45 DEGREES
(B)MACH = 3.48

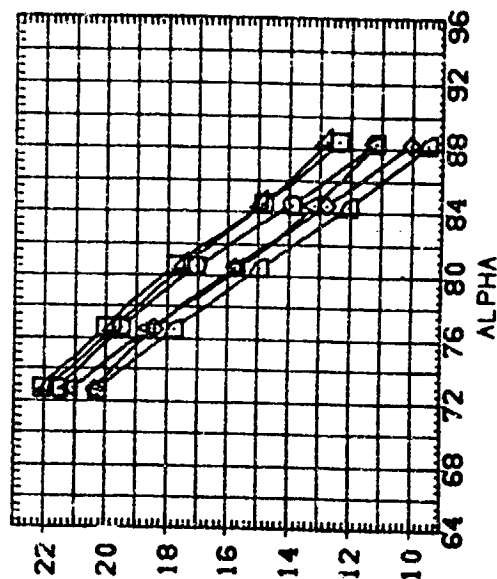
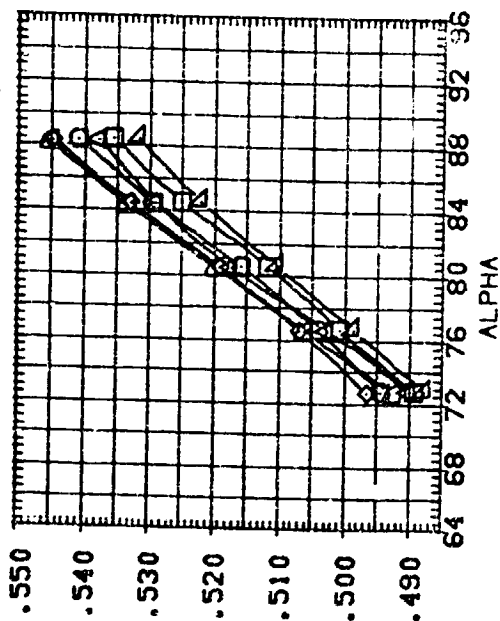
DATA KEY SYMBOL CONFIGURATION DESCRIPTION

(E7963E)	WSPC 334 (BA1P)	PRR/SRB (NO GRIT)
(E7963E)	WSPC 334 (BA1P)	PRR/SRB (NO GRIT)
(E7963E)	WSPC 334 (BA1P)	PRR/SRB (NO GRIT)
(E7963E)	WSPC 334 (BA1P)	PRR/SRB (NO GRIT)
(E7963E)	WSPC 334 (BA1P)	PRR/SRB (NO GRIT)
(E7963E)	WSPC 334 (BA1P)	PRR/SRB (NO GRIT)



BETA PHI PWOSTK APTSTK REFERENCE INFORMATION

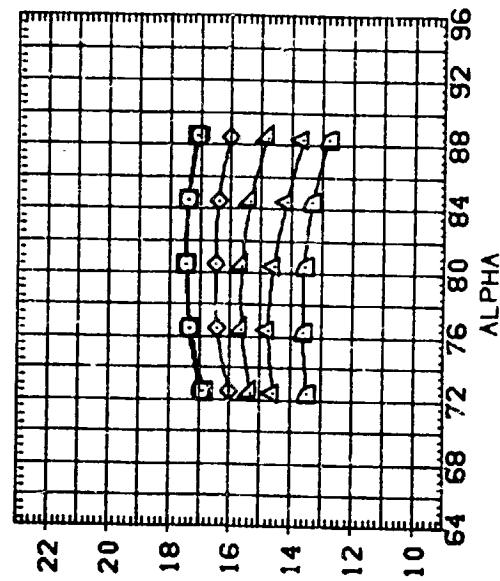
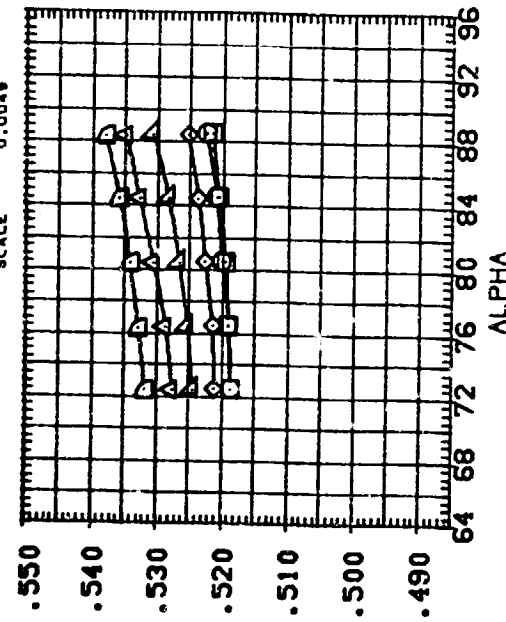
0.000	90.000	1.000	1.200	SREF	0.503N	30.1M.
0.000	45.135	2.100	2.100	LNRF	0.8000	1NCH
0.000	90.000	1.100	1.100	GNRF	0.8000	1NCH
0.000	90.000	1.100	1.100	KNRF	0.8010	1NCH
0.000	90.000	1.100	1.100	YMRP	0.0000	
0.000	90.000	1.100	1.100	ZMRP	0.0000	
				SCALE	0.0049	



STRAKE COMPARISON - PHI = 90 DEGREES

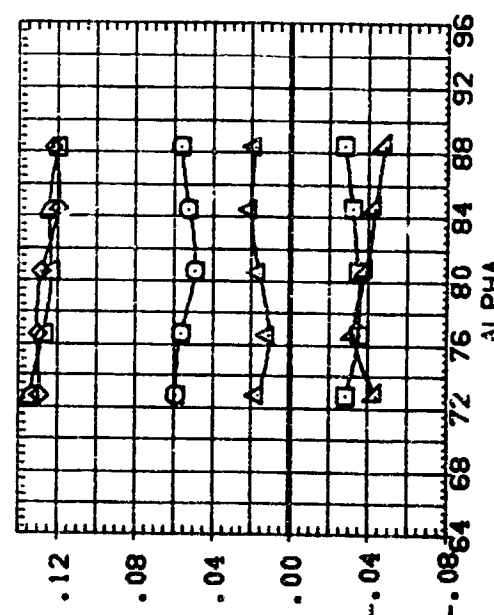
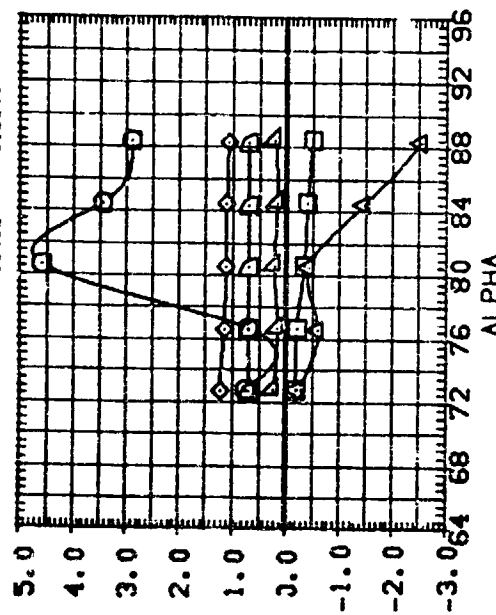
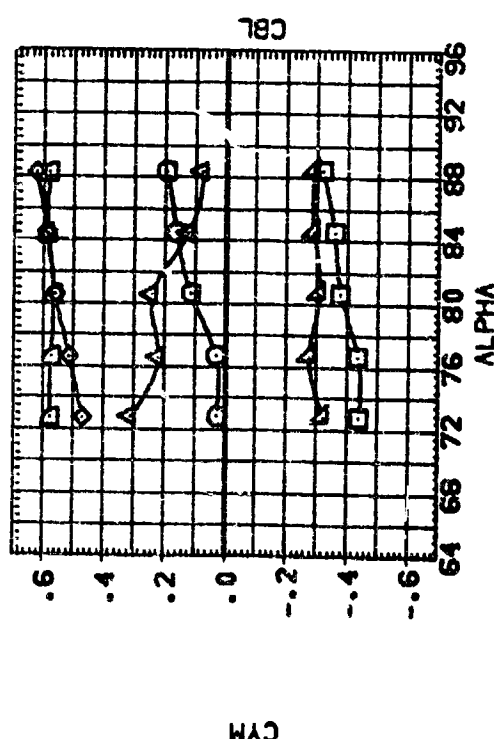
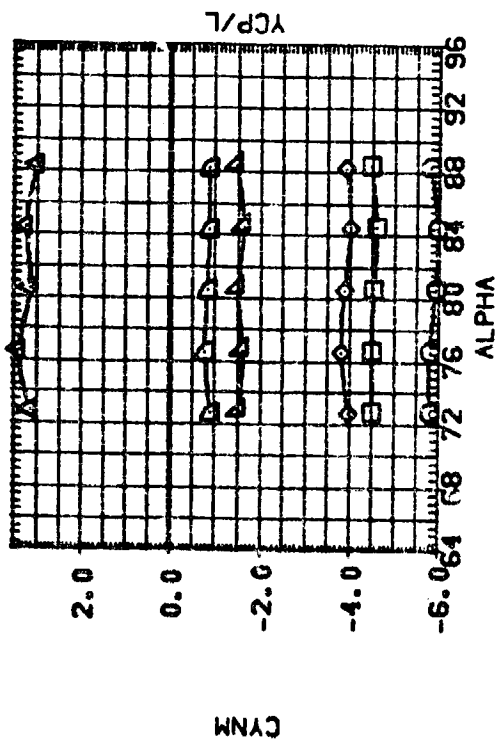
(A)MACH = .90

BETA	PHI	PMOSTK	APTSK	REFERENCE INFORMATION	SG, IN.
0.000	90.000	1.200	1.200	BREP	0.3030
0.000	45.135	2.100	2.100	LREP	0.6000
0.000	90.000	1.100	1.800	BREP	0.6000
0.000	90.000	1.200	1.100	XMRP	6.0610
0.000	90.000	1.100	1.100	YMRP	0.0000
0.000	90.000	1.100	1.100	ZMRP	0.0000
				SCALE	0.0049



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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PHI	PMOSTR	APTRK	REFERENCE INFORMATION
(E2463E)	NSPC 534 (SAIP) PRN/BRB (NO GRIT)	90.000	1.200	1.200	SRFP 0.5030 SQ. IN.
(E2463E)	NSPC 534 (SAIP) PRN/BRB (NO GRIT)	45.135	2.100	2.100	LRCP 0.8000 INCH
(E2463E)	NSPC 534 (SAIP) PRN/BRB (NO GRIT)	90.000	1.100	1.200	BRFP 0.8000 INCH
(E2463E)	NSPC 534 (SAIP) PRN/BRB (NO GRIT)	90.000	1.200	1.100	YHRP 6.0810 INCH
(E2463E)	NSPC 534 (SAIP) PRN/BRB (NO GRIT)	90.000	1.100	1.100	ZHRP 0.0000
(E2463E)	NSPC 534 (SAIP) PRN/BRB (NO GRIT)	90.000	1.100	1.100	SCALE 0.0048



STRAKE COMPARISON - PHI = 90 DEGREES
(A)MACH = .90

[illegible]

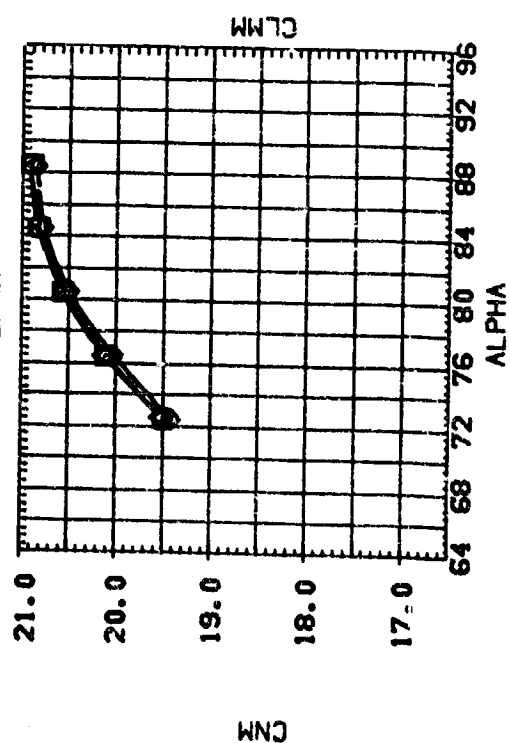
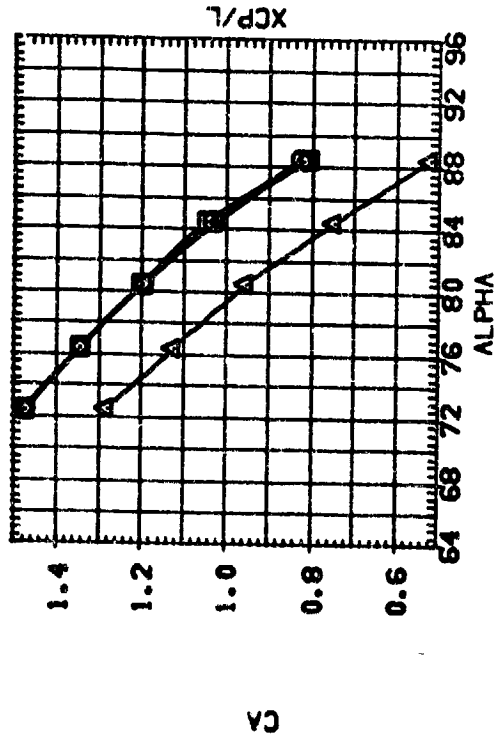
(A3)MACH = .90

REFERENCE INFORMATION					
BETA	PDI	PDI STK	AFT STK	SREP	90.1 M.
0.000	135.000	1.000	1.000	0.0000	INCH
0.000	135.000	1.000	2.000	0.0000	INCH
0.000	135.000	1.000	3.000	0.0000	INCH
0.000	135.000	1.000	4.000	0.0000	INCH
0.000	135.000	1.000	5.000	0.0000	INCH
				ZMRP	SCALE
				0.0049	



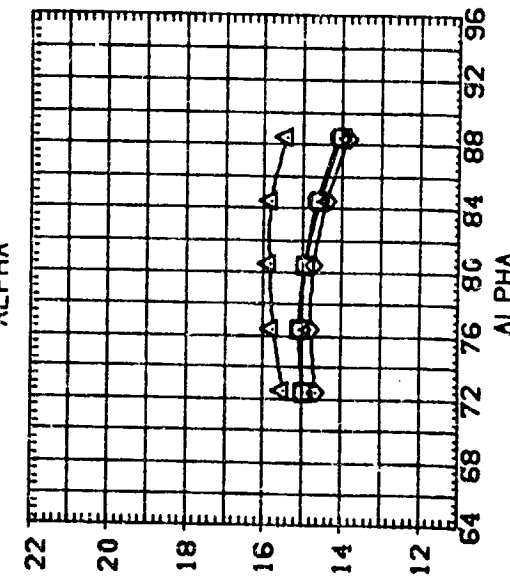
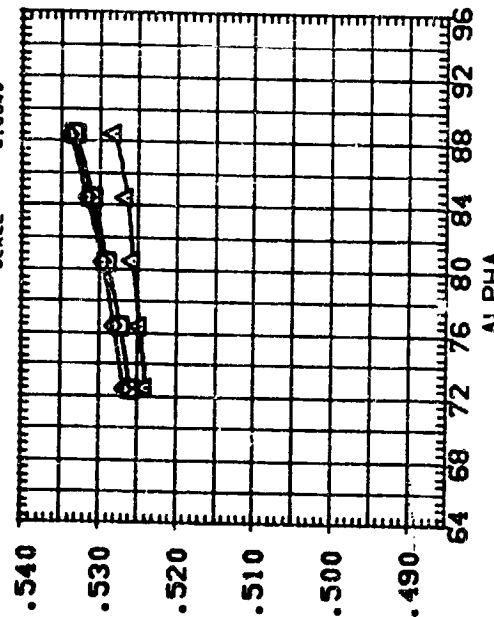
DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(E)A(5)T(1)	WSPC 554 (5A1P) PER/SRS (NO GRIT)
(E)A(5)T(2)	WSPC 554 (5A1P) PER/SRS (NO GRIT)
(E)A(5)T(3)	WSPC 554 (5A1P) PER/SRS (NO GRIT)
(E)A(5)T(4)	WSPC 554 (5A1P) PER/SRS (NO GRIT)



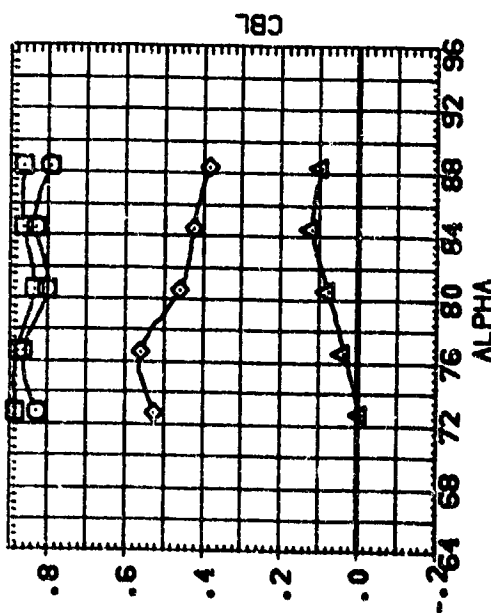
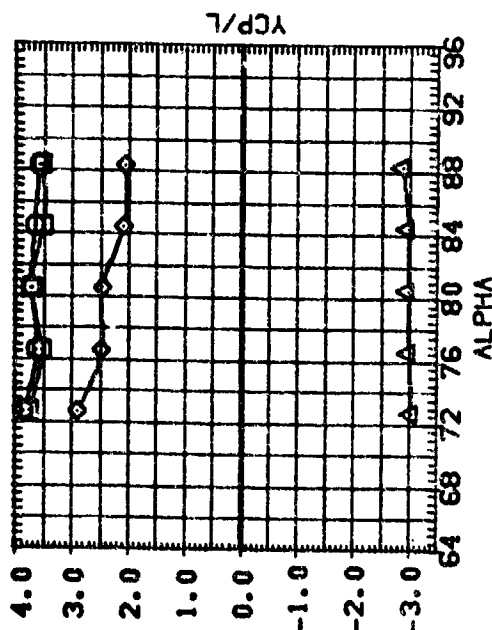
BETA PHI APTATK PABSTK REFERENCE INFORMATION

BETA	PHI	APTATK	PABSTK	REFERENCE INFORMATION
0.000	135.000	1.200	1.200	BREF 0.5030 50.1M.
0.000	90.180	2.100	2.100	LREF 0.8000 1NCH
0.000	135.000	1.200	1.200	BREF 0.8000 1NCH
0.000	135.000	1.100	1.100	XMRP 0.0810 1NCH
				YMRP 0.0000
				ZMRP 0.0000
				SCALE 0.5049



STRAKE COMPARISON - PHI = 135 DEGREES
(B)MACH = 3.48

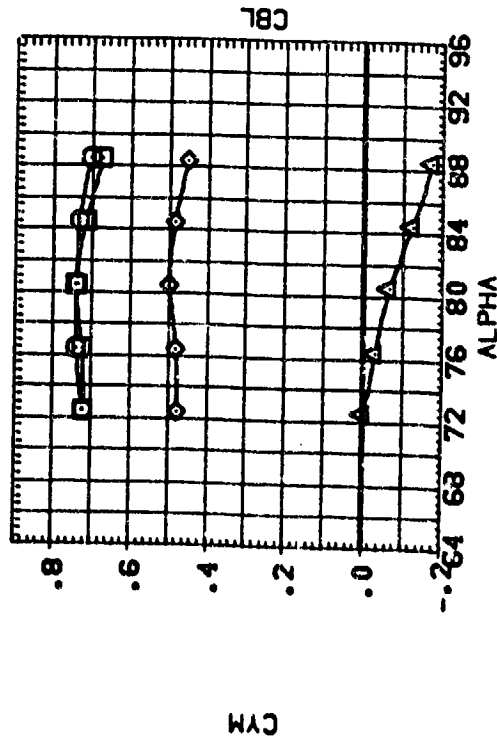
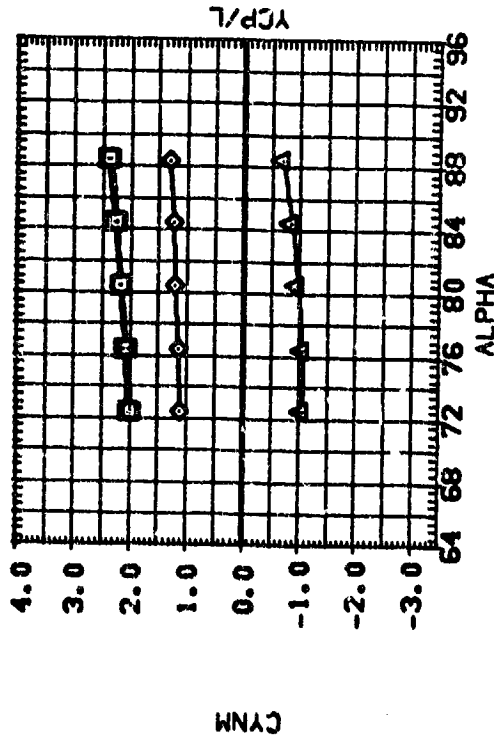
DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(E2790)CE	⊙	WPC 354 (3A1P)	PRR/2RB (NO GRIT)
(E2790)SE	△	WPC 354 (3A1P)	PRR/2RB (NO GRIT)
(E2790)TE	○	WPC 354 (3A1P)	PRR/2RB (NO GRIT)
(E2790)VE	□	WPC 354 (3A1P)	PRR/2RB (NO GRIT)



STRAKE COMPARISON - PHI = 135 DEGREES
(A)HACH = .30

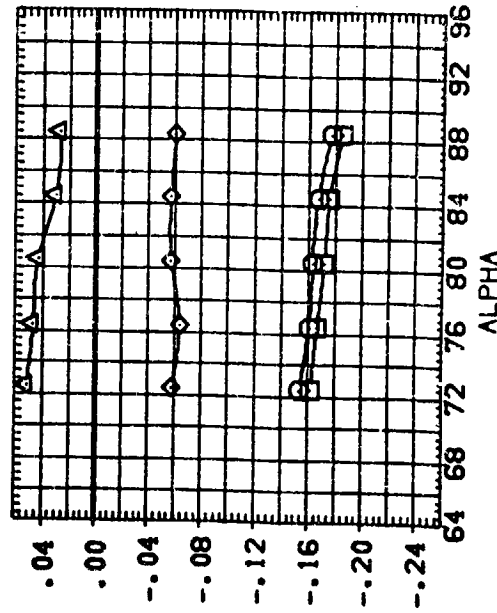
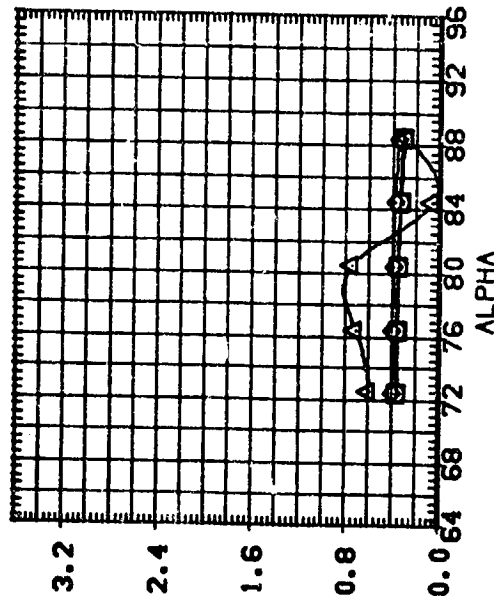
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(EPHATE)	NSPC 334 (3A1P)	MR/SRB (NO GRIT)
(EPHATE)	NSPC 334 (3A1P)	MR/SRB (NO GRIT)
(EPHATE)	NSPC 334 (3A1P)	MR/SRB (NO GRIT)
(EPHATE)	NSPC 334 (3A1P)	MR/SRB (NO GRIT)



BETA PHI PABSTK APTSTK REFERENCE INFORMATION

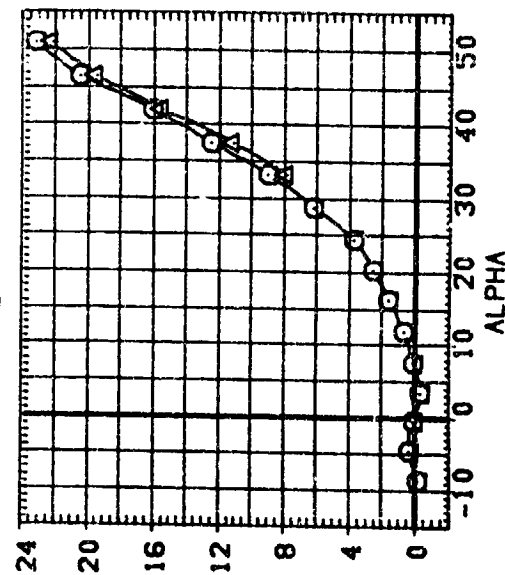
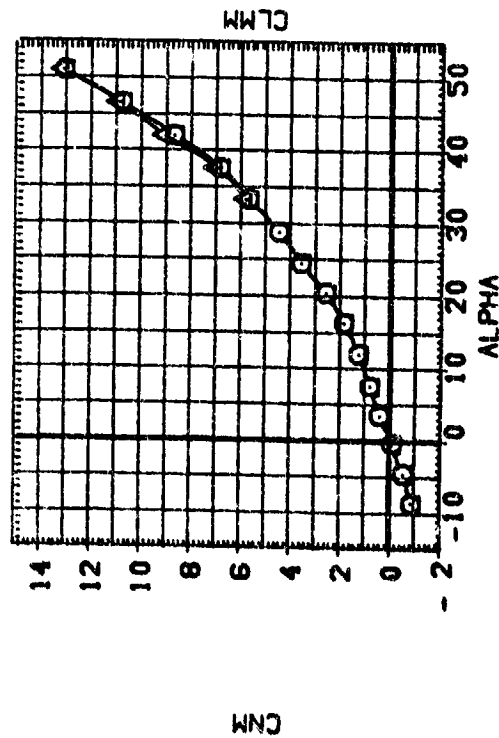
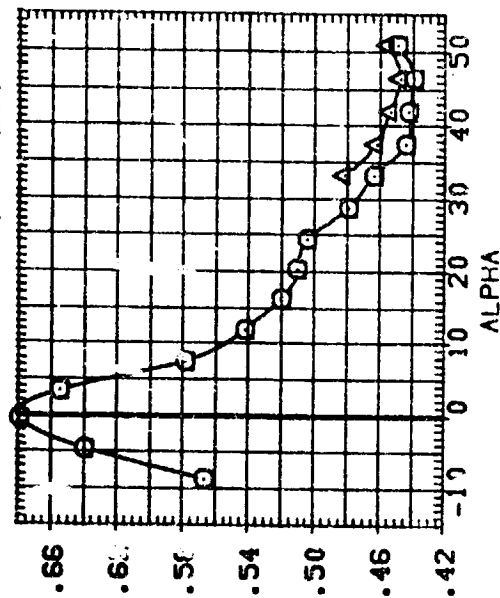
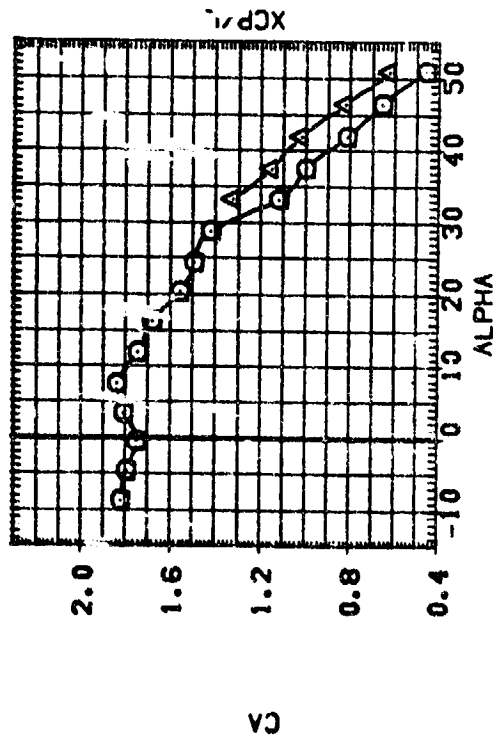
0.000	135.000	1.200	1.200	SRFP	0.5030	36.14
0.000	90.130	2.100	2.100	LRFP	0.8000	INCH
0.000	135.000	1.100	1.200	SRFP	0.8000	INCH
0.000	135.000	1.200	1.100	YMRP	0.0810	INCH
				YMRP	0.0000	
				ZMRP	0.0000	
				SCALE	0.0049	



STRAKE COMPARISON - PHI = 135 DEGREES
(BJMACH = 3.48)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (27502A) NSPC 554 (SALP) PER/SRB (NO GRIT)
 (27503C) NSPC 554 (SALP) PER/SRB (NO GRIT) (WATCH-RING)

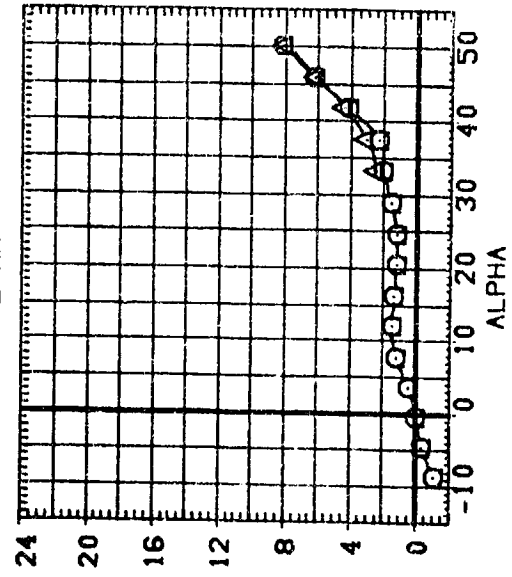
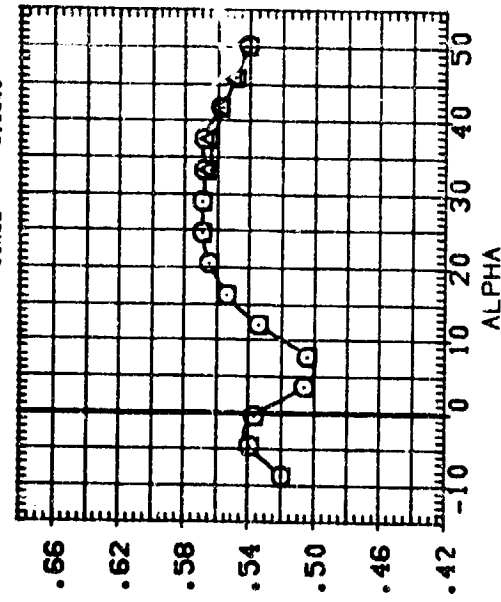
BETA PHI PASTK APTSK REFERENCE INFORMATION
 0.000 45.000 1.100 1.100 SREF 0.5050 39.1M.
 0.000 45.000 1.100 1.100 LREF 0.8000 1NCH
 XREF 0.8000 1NCH
 XMRP 6.0810 1NCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049



EFFECTS OF ATTACHMENT RING, PHI = 45 DEGREES
 (A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FMOSTK	APTSTK	REFERENCE INFORMATION
(E79P3A)	WSPC 334 (SALP) PRR/SRS (NO GRIT)	0.000	45.000	1.100	1.100	SREF 0.5030 38. IN.
(E79R3C)	WSPC 334 (SALP) PRR/SRS (NO GRIT) (WATCH-RING)	0.000	45.000	1.100	1.100	LRZF 0.8000 1 INCH
						SREF 0.8000 1 INCH
						YMRP 0.0810 1 INCH
						ZMRP 0.0000
						SCALE 0.0045

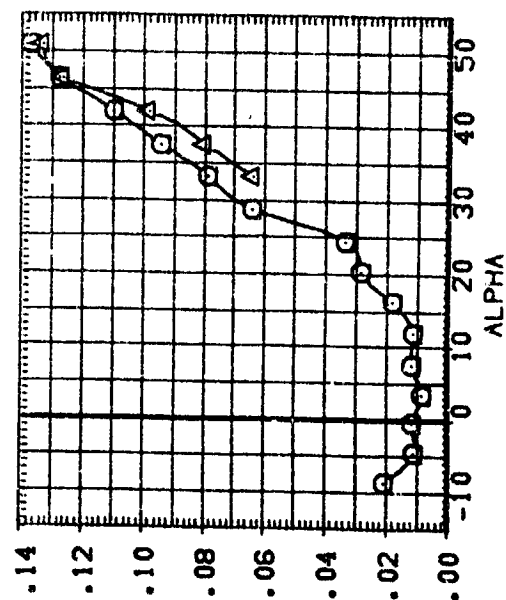
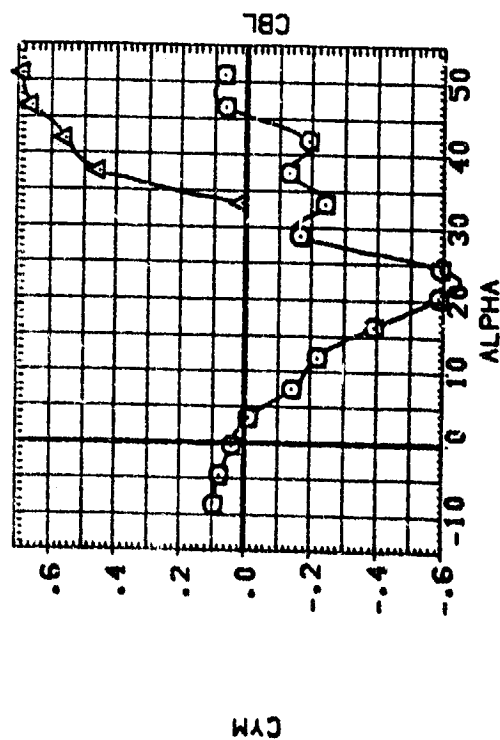
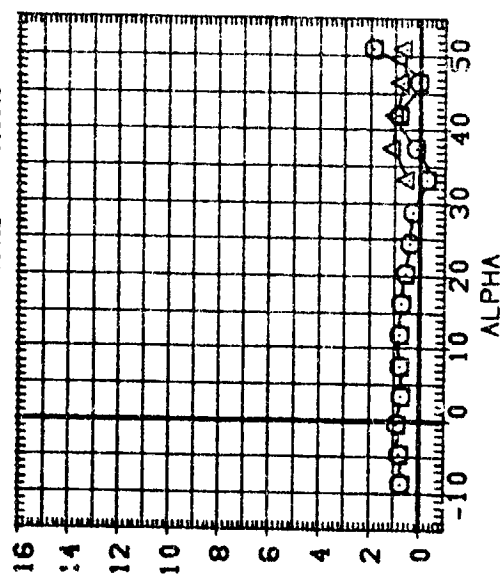
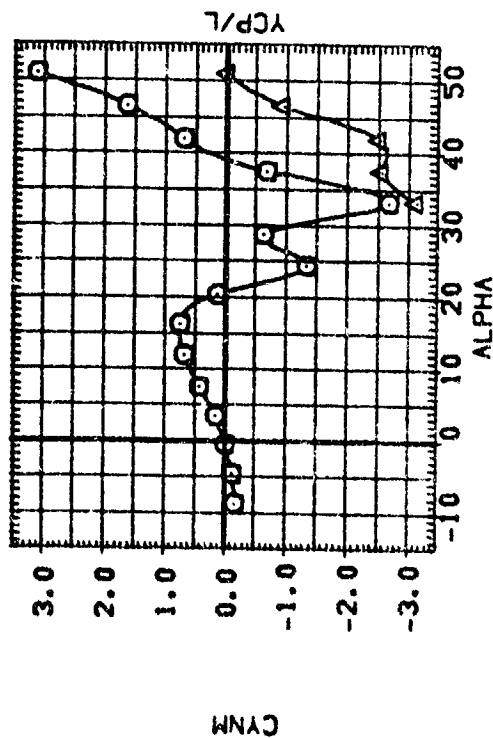


EFFECTS OF ATTACHMENT RING, PHI = 45 DEGREES

(B)MACH = 3.48

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(E79P3A)	MSPC 554 (8A1P)	MRP/SRB (NO
(E79R3C)	MSPC 554 (8A1P)	MRP/SRB (NO

REFERENCE INFORMATION	
BREF	0.0030 50.1N.
LREF	0.0000 INCH
BREF	0.0000 INCH
XMRP	0.0010 INCH
YMRP	0.0000
ZMRP	0.0000
SCALE	0.0049



EFFECTS OF ATTACHMENT RING, PHI = 45 DEGREES

{A}MACH = .90

Q	MSFC 554 (SA1P)	PRR/GRB (NO CRIT)
(E7943A)		
(E7943C)		

WSPC 554 (SA1P)	PRR/DRB (NO CRIT)	WSPC 554 (SA1P)	PRR/DRB (NO CRIT)	(W/ATCH-RING)

BETA PHI FLOSTK APTSTK

144

144

FW03TK APT87K

FW03TK APT87K

REFERENCE INFORMATION	
SREF	0.5030
LREF	0.8000
SREF	0.8010
YREF	6.0810
YREF	0.0000
ZREF	0.0000
SCALE	0.0049

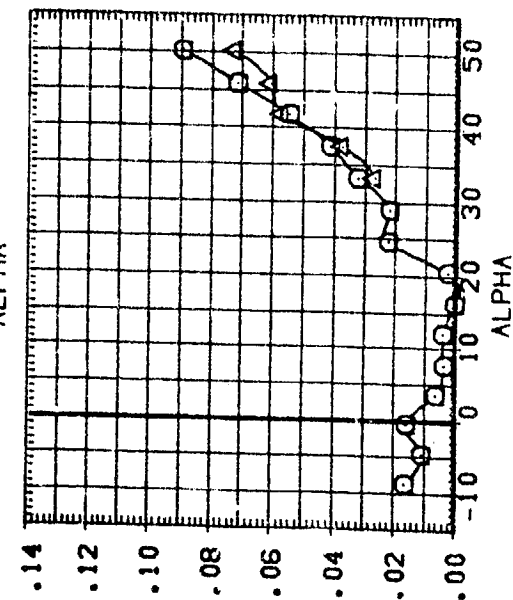
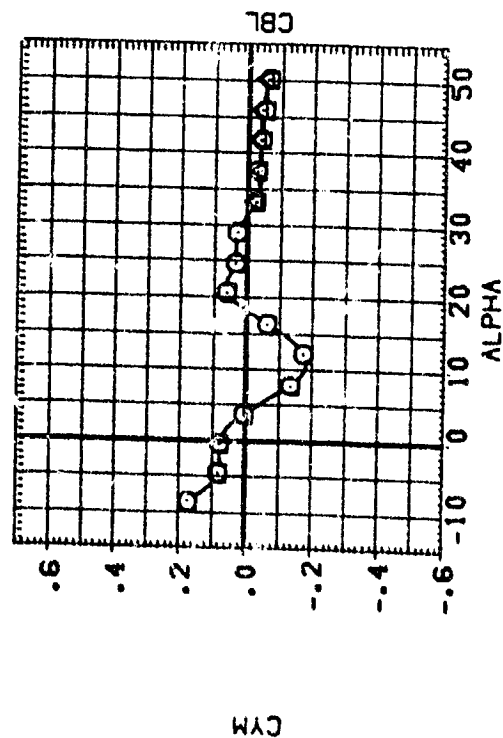
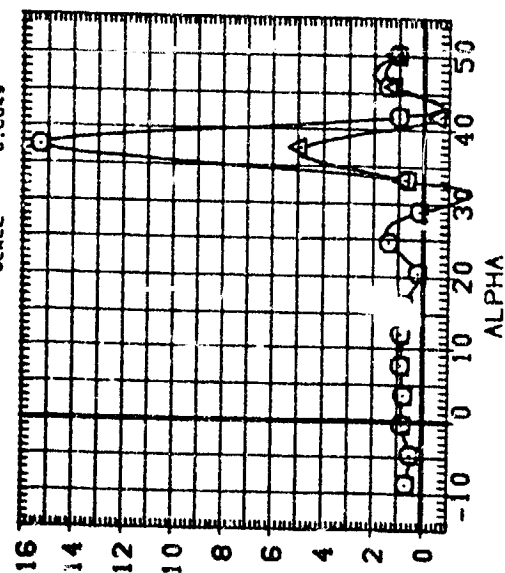
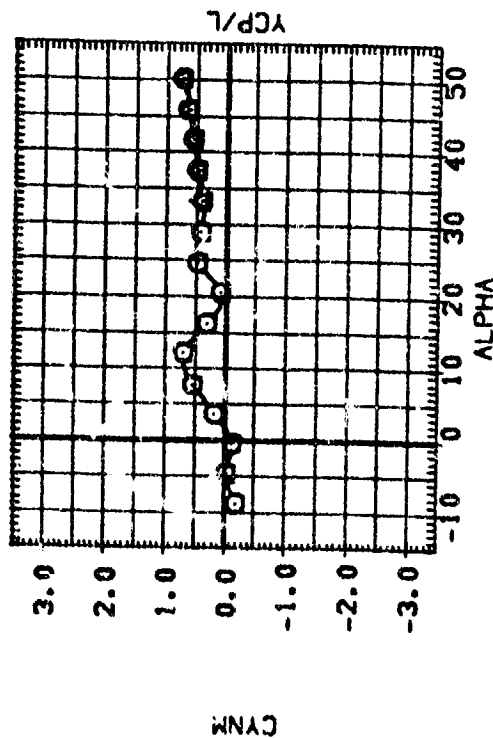
REFERENCE INFORMATION	
SREF	0.5030
LREF	0.8000
SREF	0.8010
YREF	6.0810
YREF	0.0000
ZREF	0.0000
SCALE	0.0049

REFERENCE INFORMATION	
SREF	0.5030
LREF	0.8000
SREF	0.8010
YREF	6.0810
YREF	0.0000
ZREF	0.0000
SCALE	0.0049

REFERENCE INFORMATION	
SREF	0.5030
LREF	0.8000
SREF	0.8010
YREF	6.0810
YREF	0.0000
ZREF	0.0000
SCALE	0.0049

REFERENCE INFORMATION	
SREF	0.5030
LREF	0.8000
SREF	0.8010
YREF	6.0810
YREF	0.0000
ZREF	0.0000
SCALE	0.0049

REFERENCE INFORMATION	
SREF	0.5030
LREF	0.8000
SREF	0.8010
YREF	6.0810
YREF	0.0000
ZREF	0.0000
SCALE	0.0049



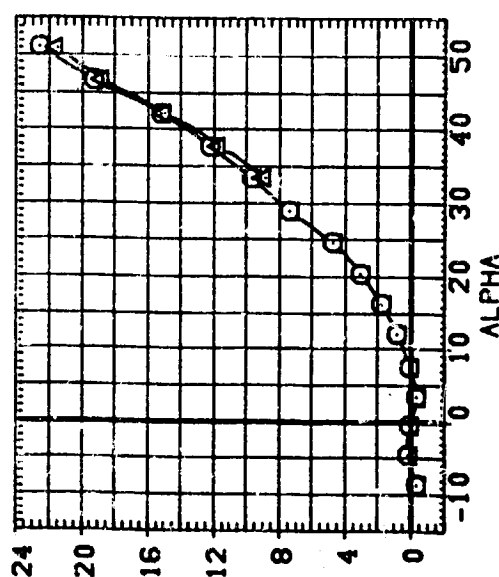
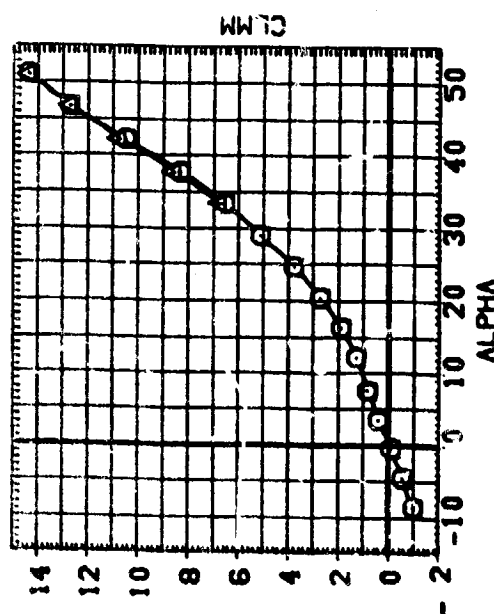
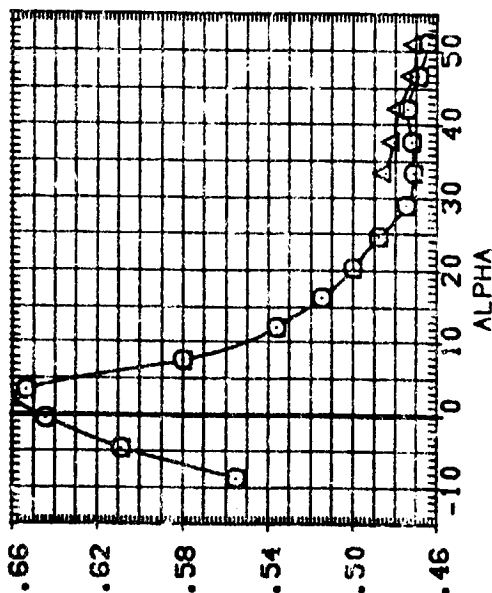
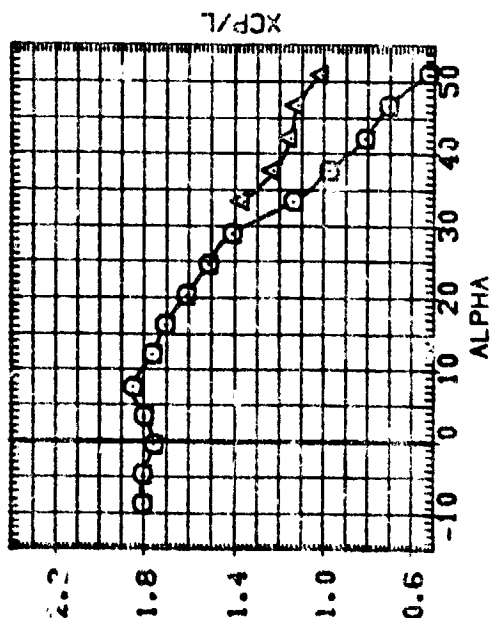
EFFECTS OF ATTACHMENT RING, PHI = 45 DEGREES

(B)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E9973A) Q M5PC 55- (5A1P) MR/8RB (NO GRIT)
 (E9973C) Q M5PC 55- (5A1P) MR/8RB (NO GRIT) (WATCH-RING)

BETA PHI PMOSTR APT5TH
 0.000 90.000 1.100 1.100
 0.000 90.000 1.100 1.100

REFERENCE INFORMATION
 SRZF 0.5030 50.1N.
 LRZF 0.6000 1NCH
 BRZF 0.6000 1NCH
 MRZF 0.0810 1NCH
 YMRP 0.0000
 ZMRP 0.0000
 SCALE 0.0049

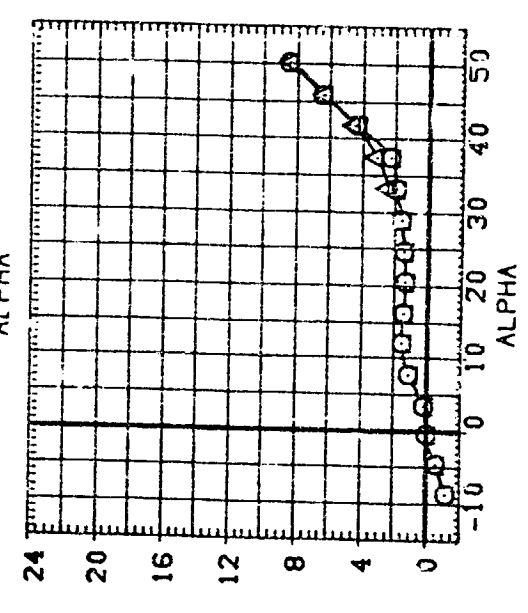
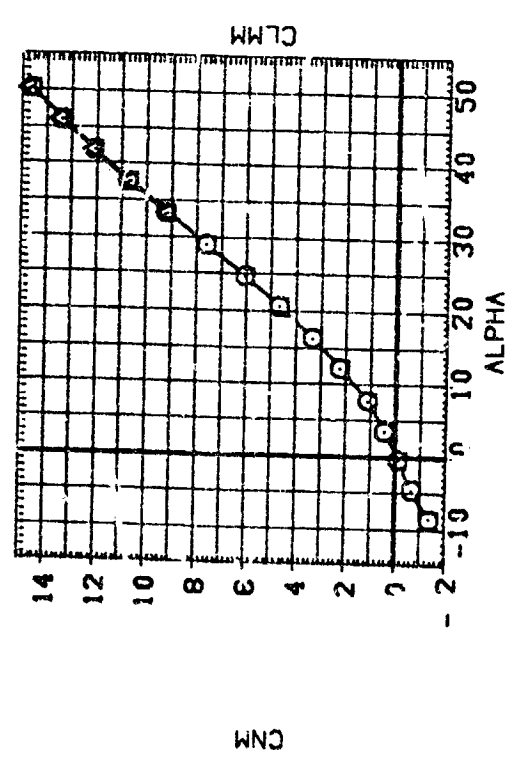
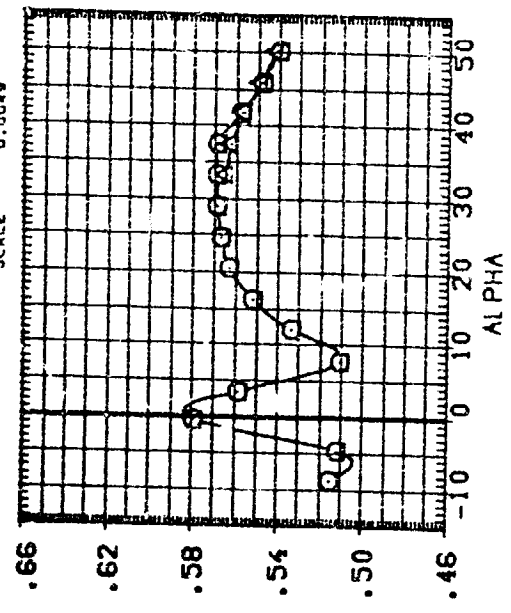
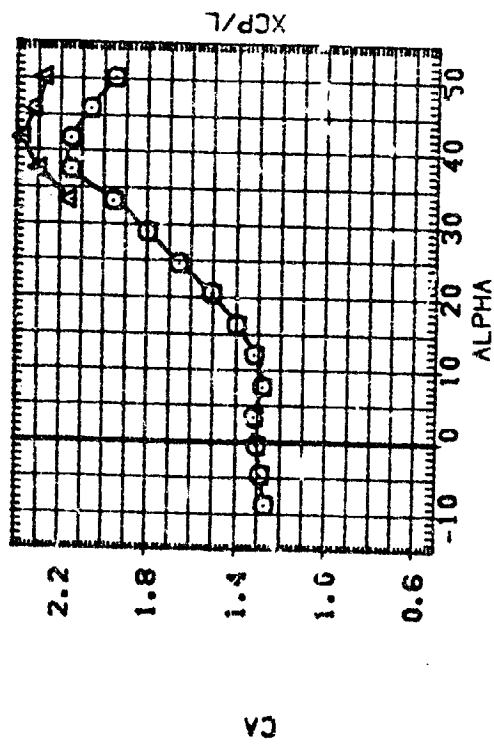


EFFECTS OF ATTACHMENT RING, PHI = 90 DEGREES

(A)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (272P5A) NSPC 354 (SALP) PRP/RRR (NO GRIT)
 (272P5C) NSPC 354 (SALP) PRP/RRR (NO GRIT) (MATCH-RING)

BETA PHI PWO8TK APT8TK REFERENCE INFORMATION
 0.000 90.000 1.100 1.100 SREF 0.3030 19.1N.
 0.000 90.000 1.100 1.100 LREF 0.8000 1NCH
 0.000 90.000 1.100 1.100 WREF 0.8000 1NCH
 0.000 90.000 1.100 1.100 YMRP 4.0810 1NCH
 0.000 90.000 1.100 1.100 ZMRP 0.0000
 0.000 90.000 1.100 1.100 SCALE 0.0049



EFFECTS OF ATTACHMENT RING, PHI = 90 DEGREES
 (B)MACH = 3.48

DATA SET SYMBOL: (E75P3A) (E75P3C) Ω

CONFIGURATION DESCRIPTION: WSFC 354 (BALP) PRP/SRG (NO GRIT) WSFC 354 (BALP) PRP/SRG (NO GRIT) (WATCH-RING)

BETA: 0.000 90.000 0.000 90.000

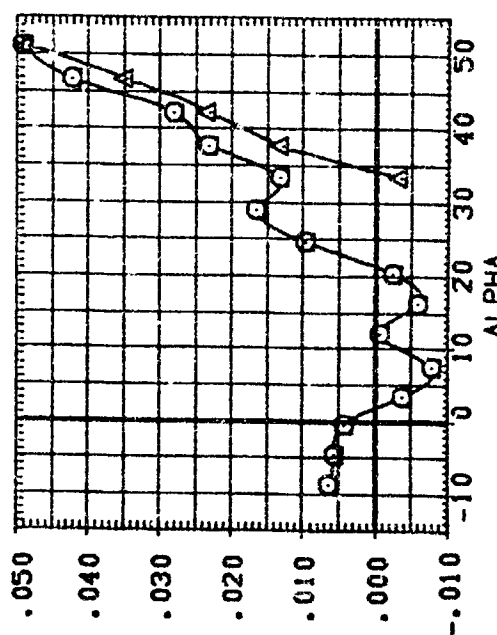
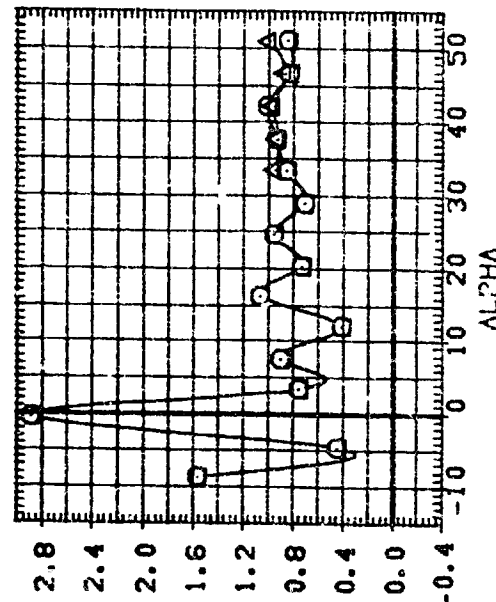
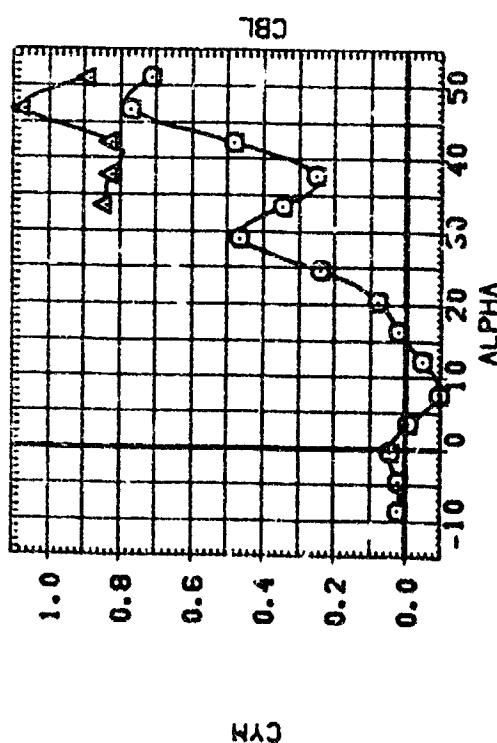
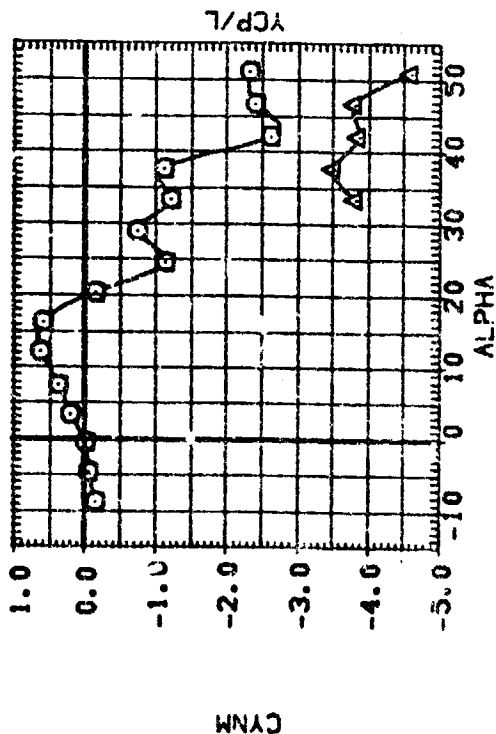
PHI: 90.000 90.000

PMOSTK: 1.100 1.100

APTSK: 1.100 1.100

REFERENCE INFORMATION:

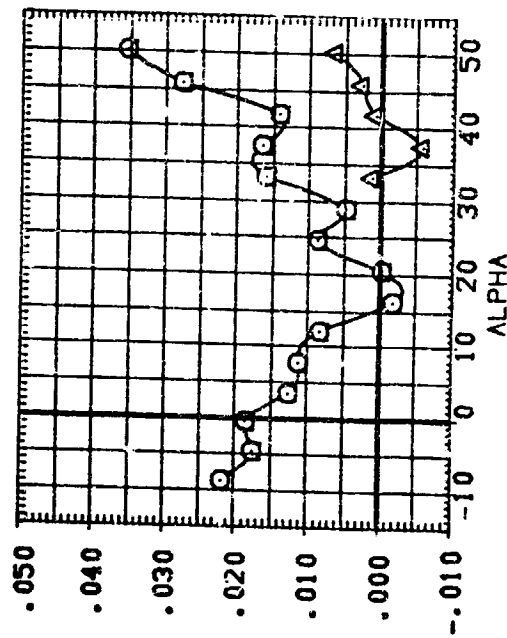
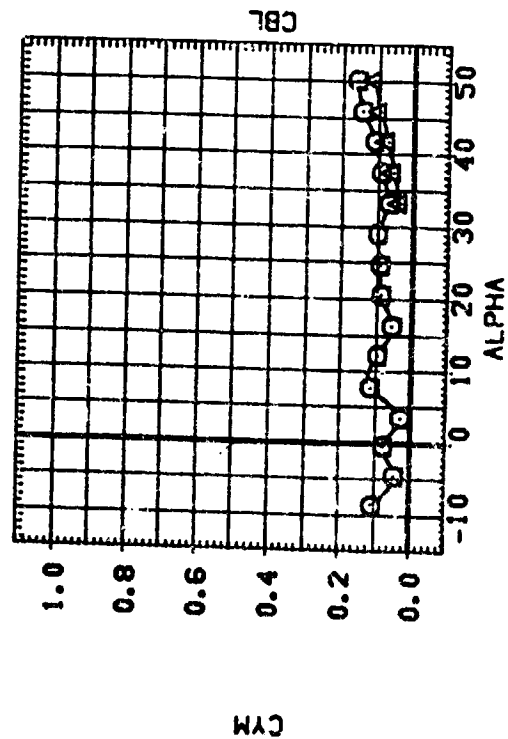
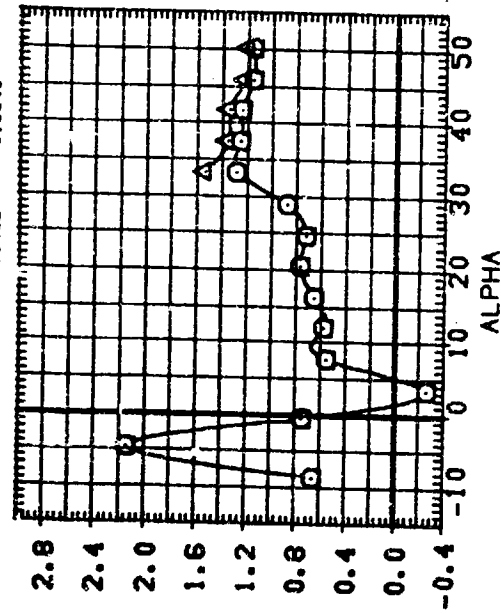
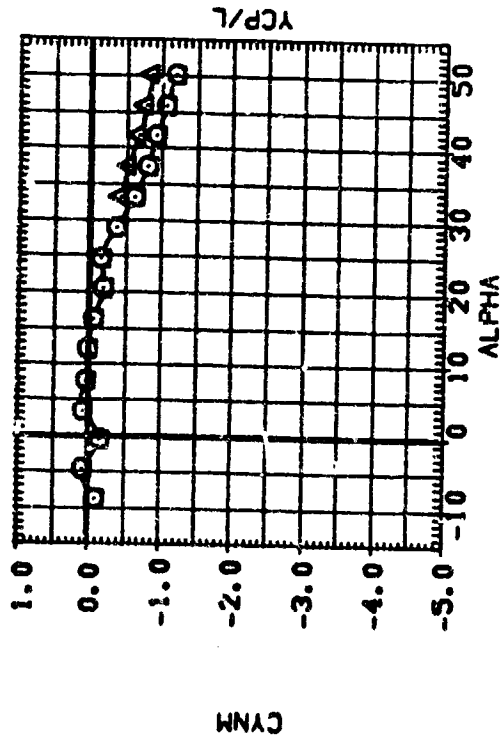
SRZF	0.8030	90.1M.
LNRF	0.8000	1NCH
SRZF	0.8000	1NCH
ZMRP	0.0810	1NCH
ZMRP	0.0000	
ZMRP	0.0000	
SCALE	0.0048	



EFFECTS OF ATTACHMENT RING, PHI = 90 DEGREES
(A)MACH = .90

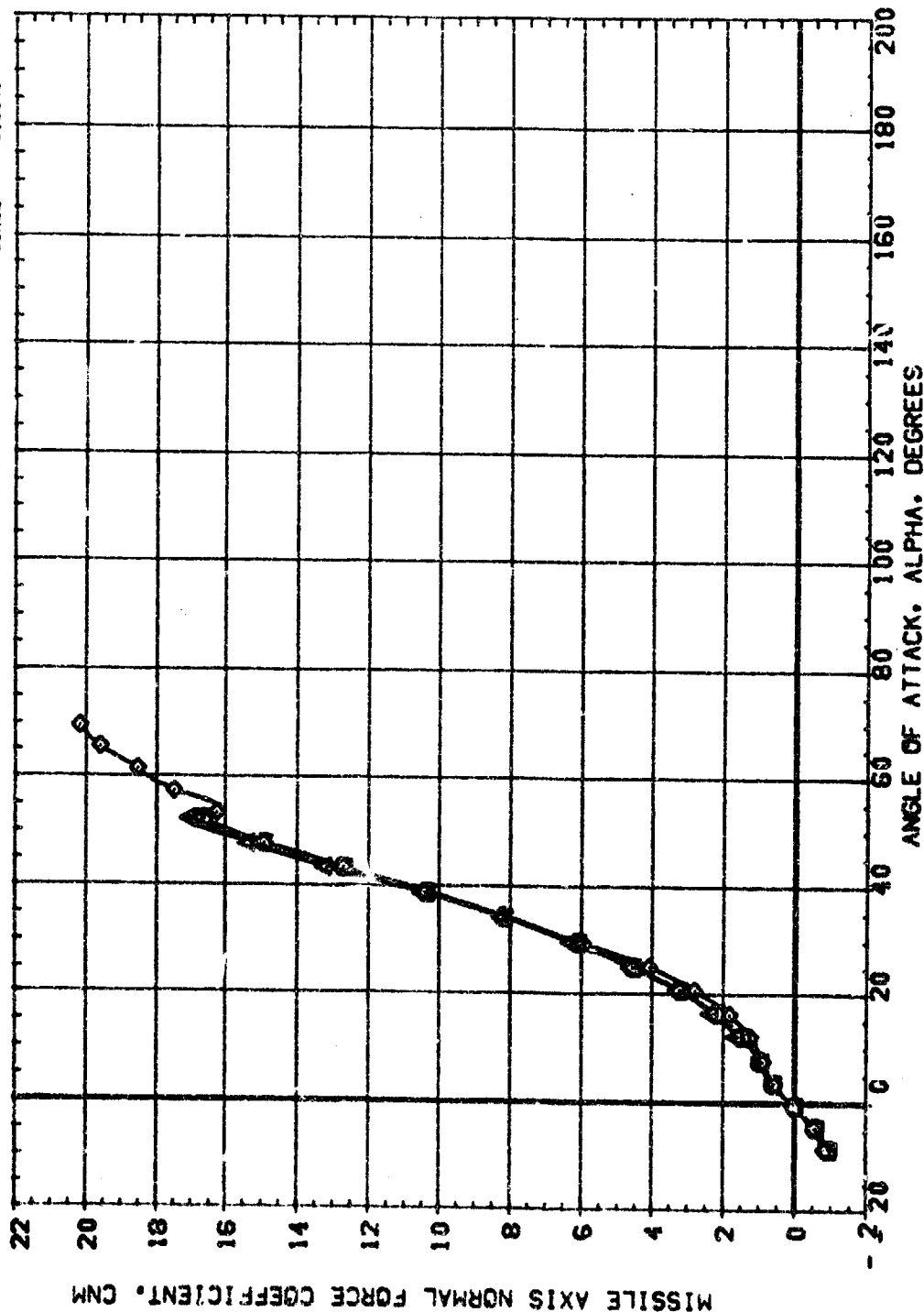
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E2003A) WSPC 554 (BALT) PER/DAB (NO GRIT)
 (E2003C) WSPC 554 (BALT) PER/DAB (NO GRIT) (WATCH-RING)

BETA PHI PWOATR APTSTR REFERENCE INFORMATION
 0.000 90.000 1.100 1.100 SREP 0.5030 59.1M.
 0.000 90.000 1.100 1.100 LREP 0.8000 1MCH
 0.000 90.000 1.100 1.100 BREP 0.8000 1MCH
 0.000 90.000 1.100 1.100 YMRP 6.0010 1MCH
 0.000 90.000 1.100 1.100 ZMRP 0.0000
 0.000 90.000 1.100 1.100 SCALE 0.0049



EFFECTS OF ATTACHMENT RING, PHI = 90 DEGREES
 (B)MACH = 3.48

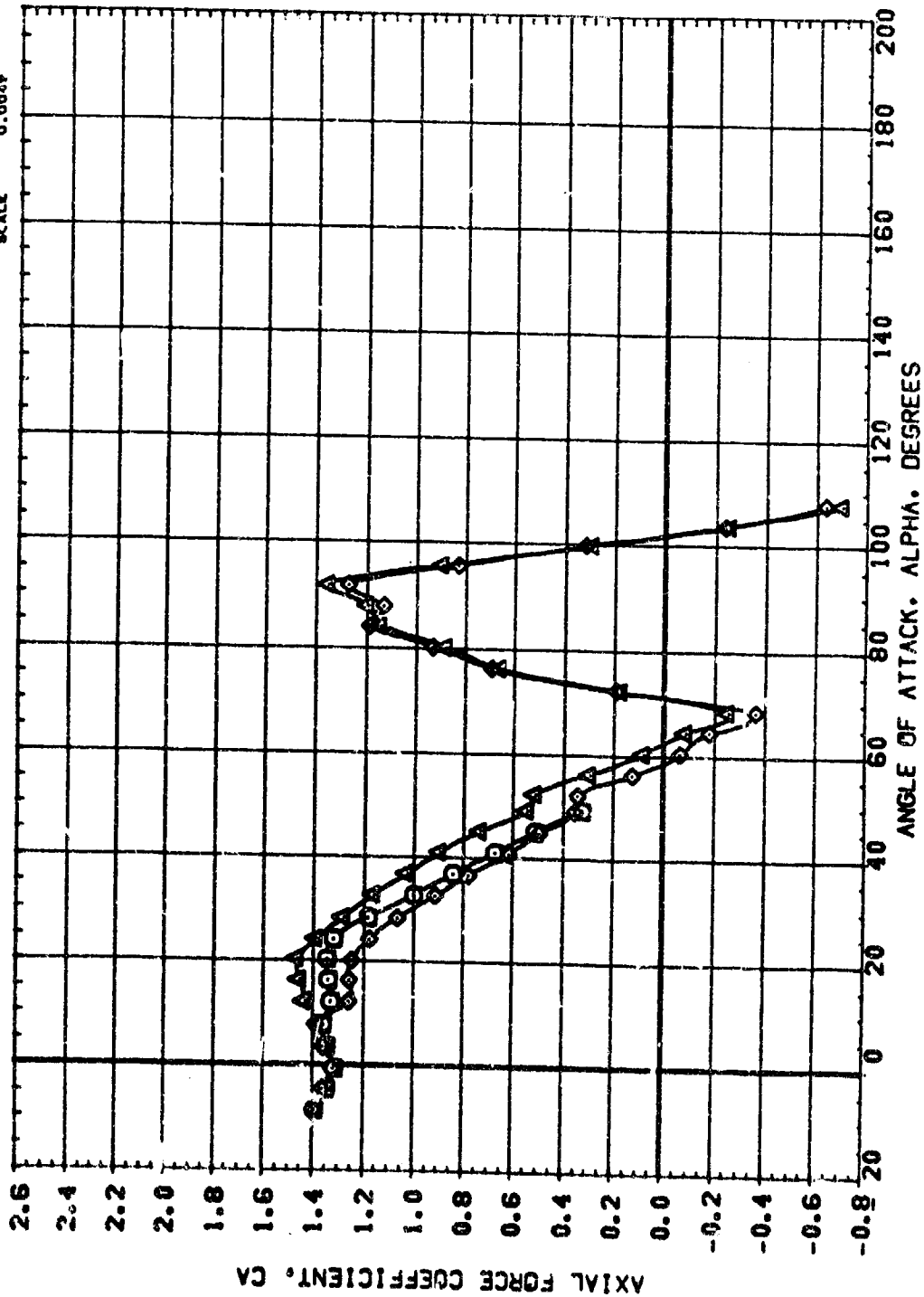
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PMI	PMOSTK	APTSTK	REFERENCE INFORMATION
(275100)	MSPC 354 (3A1P) PER/300 (W/STRIP GRIT)	0.000	0.000		SREP	0.5030 SQ. IN.
(275101)	MSPC 354 (3A1P) PER/300 (W/STRIP GRIT)	0.000	0.000		LRP	0.5000 INCH
(275111)	MSPC 354 (3A1P) PER/300 (W/STRIP GRIT)	0.000	0.000		BRP	0.5000 INCH
					TRP	0.0810 INCH
					YMRP	0.0000
					ZMRP	0.0000
					SCALE	0.0049



GRIT COMPARISON

(C)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	ARTISTK	REFERENCE INFORMATION
(270100)	WSPC 354 (SALP) PER/SBS (M/STRIP GRIT)	0.000	0.000			BREP 0.5030 26.1M.
(270101)	WSPC 354 (SALP) PER/SBS (M/FULL GRIT)	0.000	0.000			LREP 0.5000 1MCH
(270111)	WSPC 354 (SALP) PER/SBS (NO GRIT)	0.000	0.000			BREP 0.5000 1MCH
						XMRP 6.0010 1MCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049

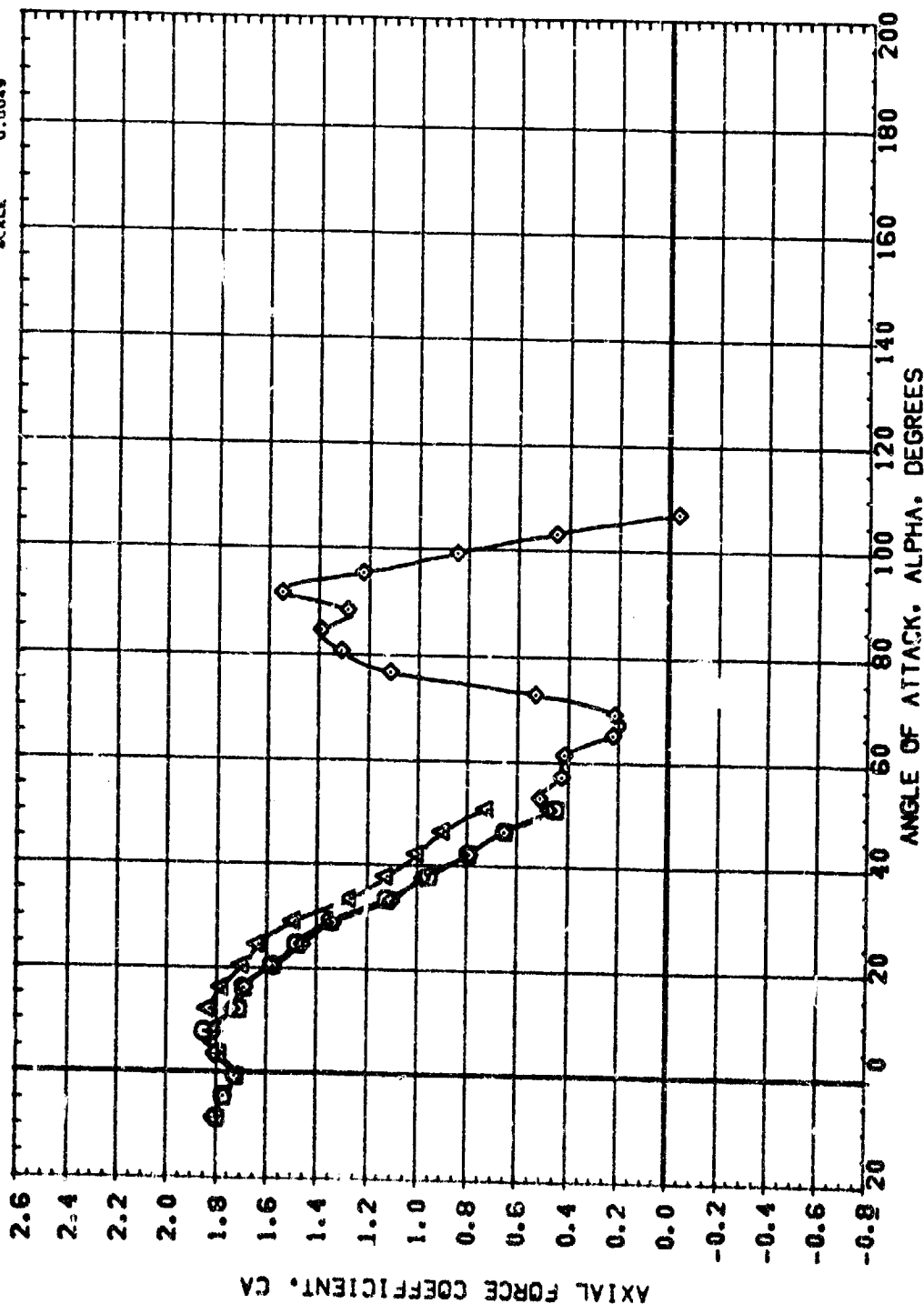


GRIT COMPARISON

(A)MACH = .59

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

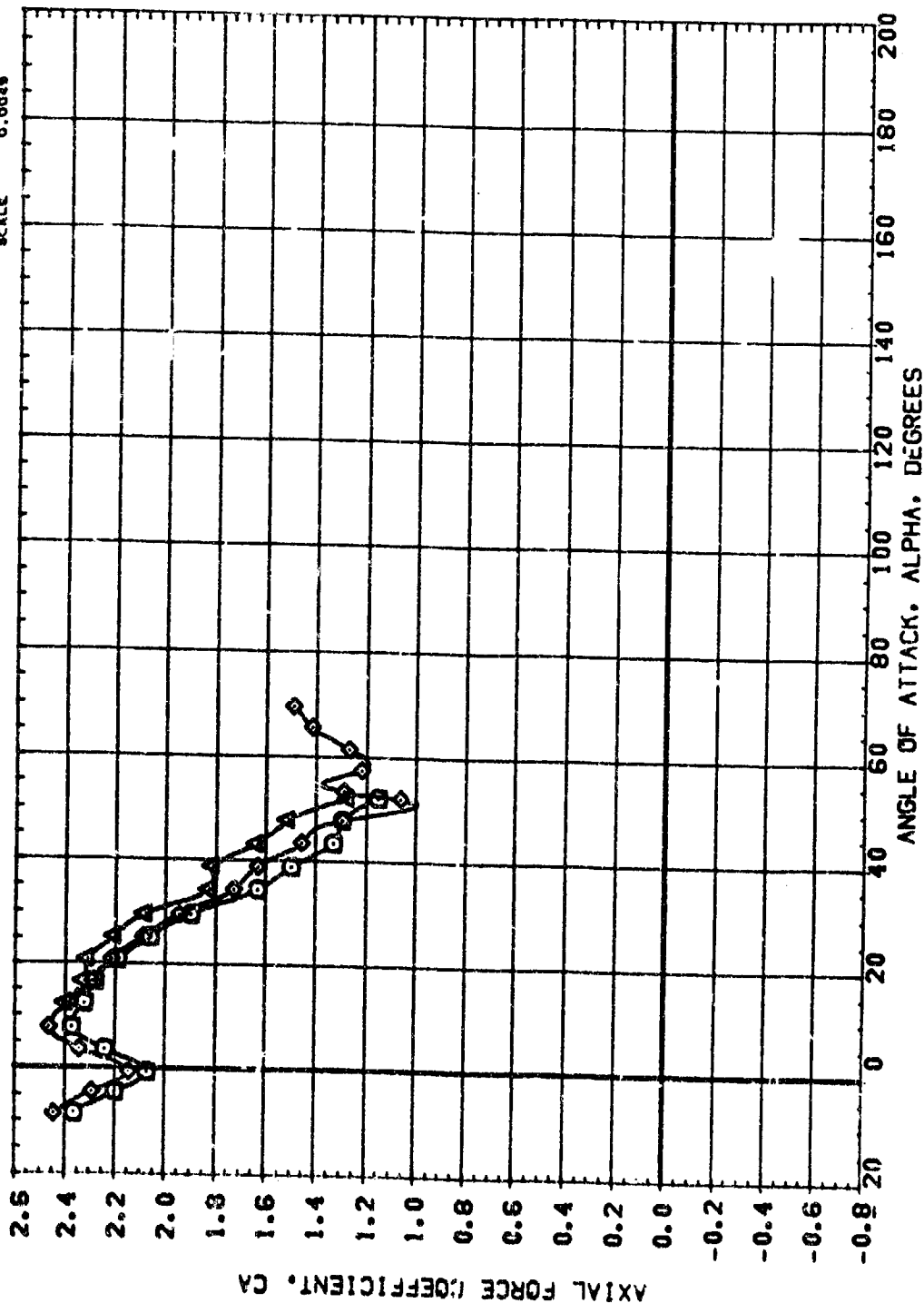
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF	APTSTK	PWOSTK	PHI	BETA	REFERENCE INFORMATION
(2791001)	NSPC 334 (BAIP) MR/SRS (W/STRIP GRIT)	SRP			0.000	0.000	3.8030 INCH
(2791011)	NSPC 334 (BAIP) MR/SRS (W/PULL GRIT)	LRP			0.000	0.000	0.2000 INCH
(2791111)	NSPC 334 (BAIP) MR/SRS (NO GRIT)	YMRP			0.000	0.000	6.0610 INCH
		ZMRP			0.0000	0.0000	0.0000
		SCALE					0.0049



GRIT COMPARISON

(B)MACH = .90

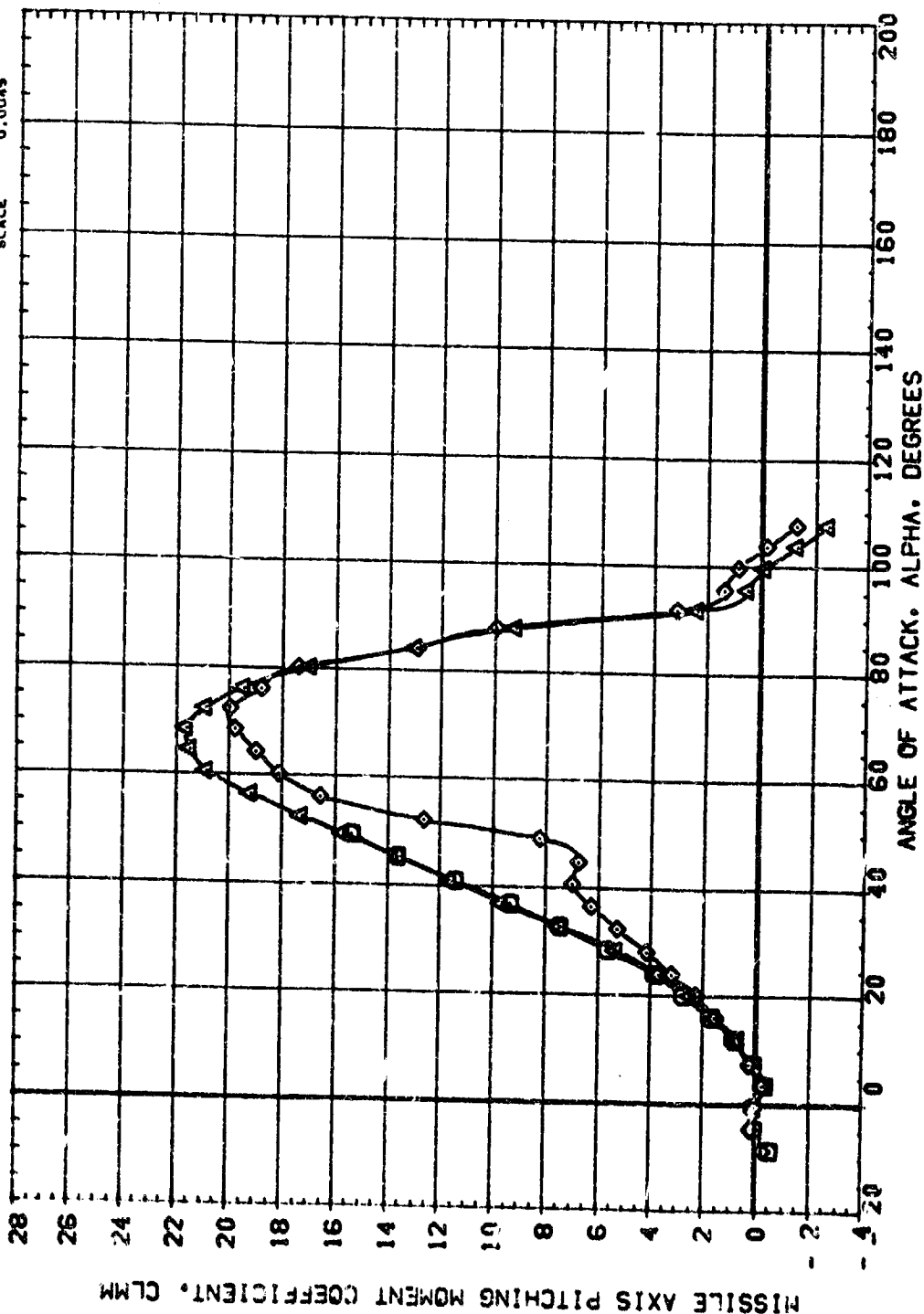
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DATA	PHI	PMOSTH	APTSK	REFERENCE INFORMATION
(279100)	NSPC 334 (BA1P) PRP/SRB (W/STRIP GRIT)	0.000	0.000			SRCP 0.3030 INCH
(279101)	NSPC 334 (BA1P) PRP/SRB (W/PULL GRIT)	0.000	0.000			LRCP 0.8000 INCH
(279111)	NSPC 334 (BA1P) PRP/SRB (W/NO GRIT)	0.000	0.000			SRCP 0.8000 INCH
						XRCP 0.0810 INCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



GRIT COMPARISON

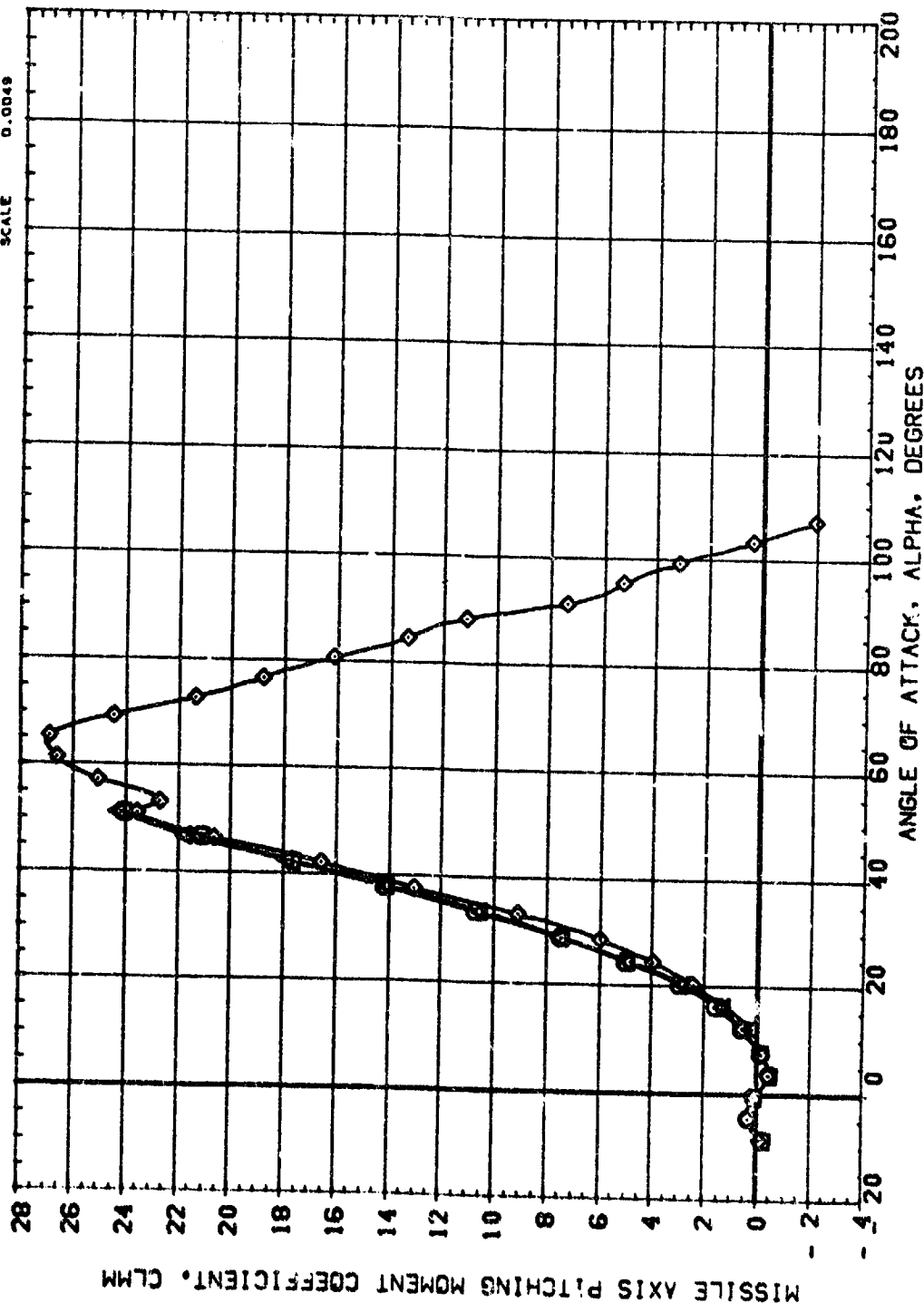
(C)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PLDSTK	APTSTK	REFERENCE INFORMATION
(2791001)	MSPC 334 (3A1P) PRB/SRB (W/STRIP GRIT)	0.000	0.000			SREF 0.5050 SQ. IN.
(2791011)	MSPC 334 (3A1P) PRB/SRB (W/PULL GRIT)	0.000	0.000			LREF 0.8000 INCH
(2791111)	MSPC 334 (3A1P) PRB/SRB (NO GRIT)	0.000	0.000			BREF 0.8000 INCH
						YMRP 6.0012 INCH
						ZMRP 0.0000
						SCALE 0.0049



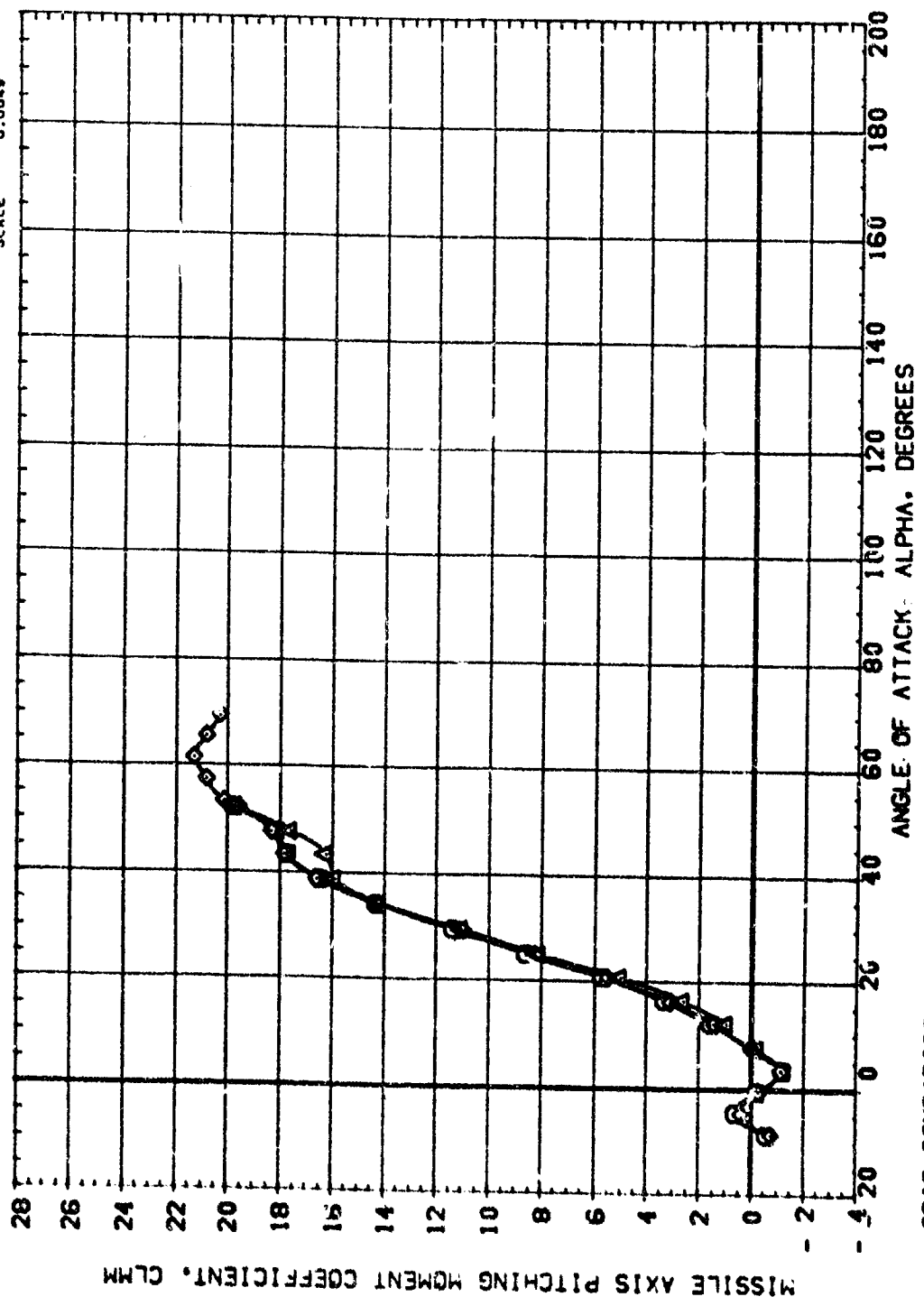
GRIT COMPARISON
(A)HACH = .59

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FMOSTK	AFSTK	REFERENCE INFORMATION
(275100)	NSPC 354 (BALP)	0.000	0.000			SRFP 0.5030 33-IN.
(275101)	NSPC 354 (BALP)	0.000	0.000			LRFP 0.8000 1INCH
(275111)	NSPC 354 (BALP)	0.000	0.000			BRFP 0.8000 1INCH
	NSPC 354 (BALP)	0.000	0.000			NRFP 0.810 1INCH
	NSPC 354 (BALP)	0.000	0.000			YMRP 0.0000
	NSPC 354 (BALP)	0.000	0.000			ZMRP 0.0000
						SCALE 0.0049



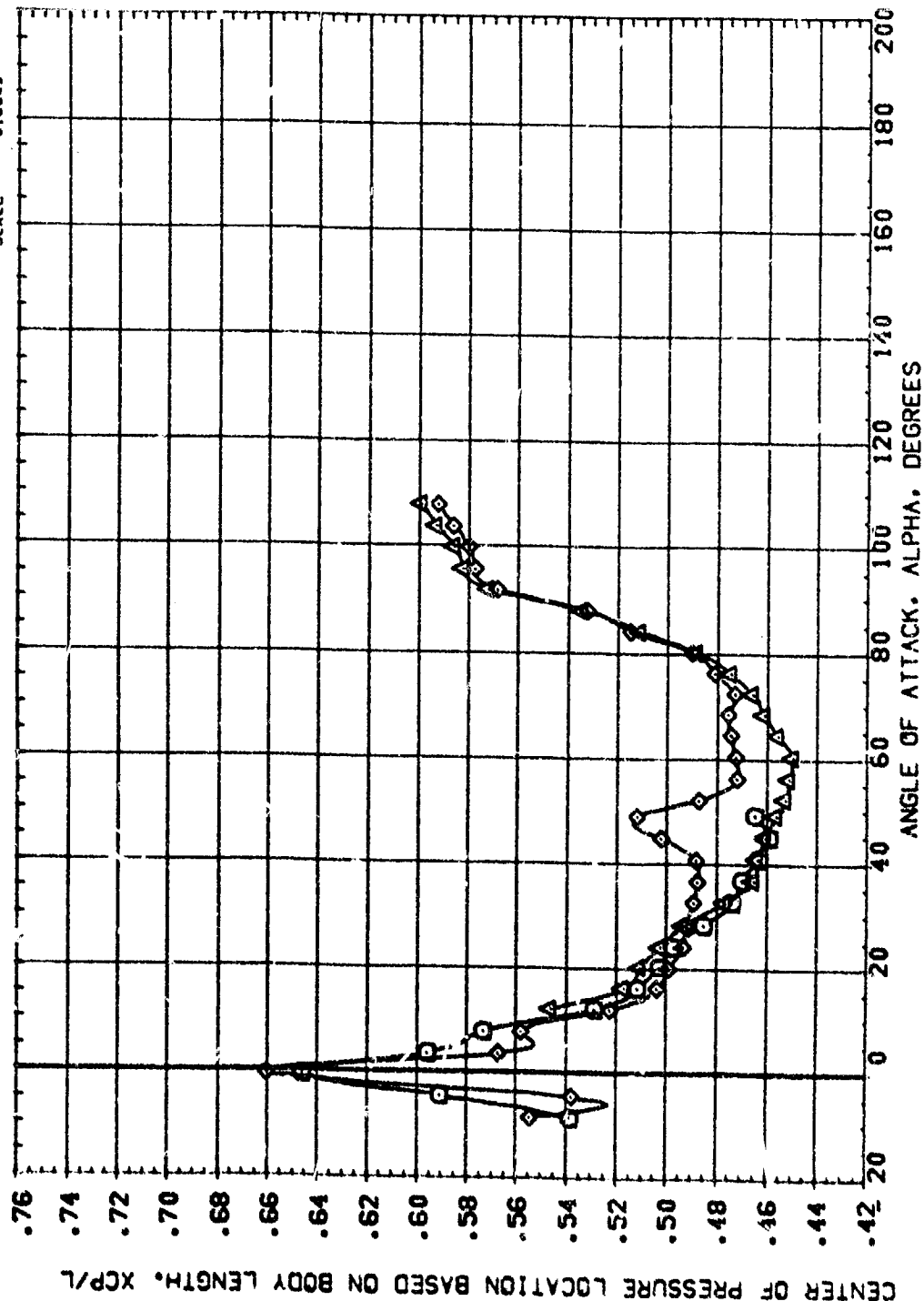
GRIT COMPARISON
(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	AP75TK	REFERENCE INFORMATION
(279100)	MSPC 554 (SALS) PRR/SRS (N/STALP GRIT)	0.000	0.000			SREF 0.5030 50. IN.
(279101)	MSPC 554 (SALS) PRR/SRS (N/PULL GRIT)	0.000	0.000			LREF 0.8000 INCH
(279111)	MSPC 554 (SALS) PRR/SRS (NO GRIT)	0.000	0.000			BREF 0.8000 INCH
						YMRP 0.0810 INCH
						ZMRP 0.0000
						SCALE 0.0049

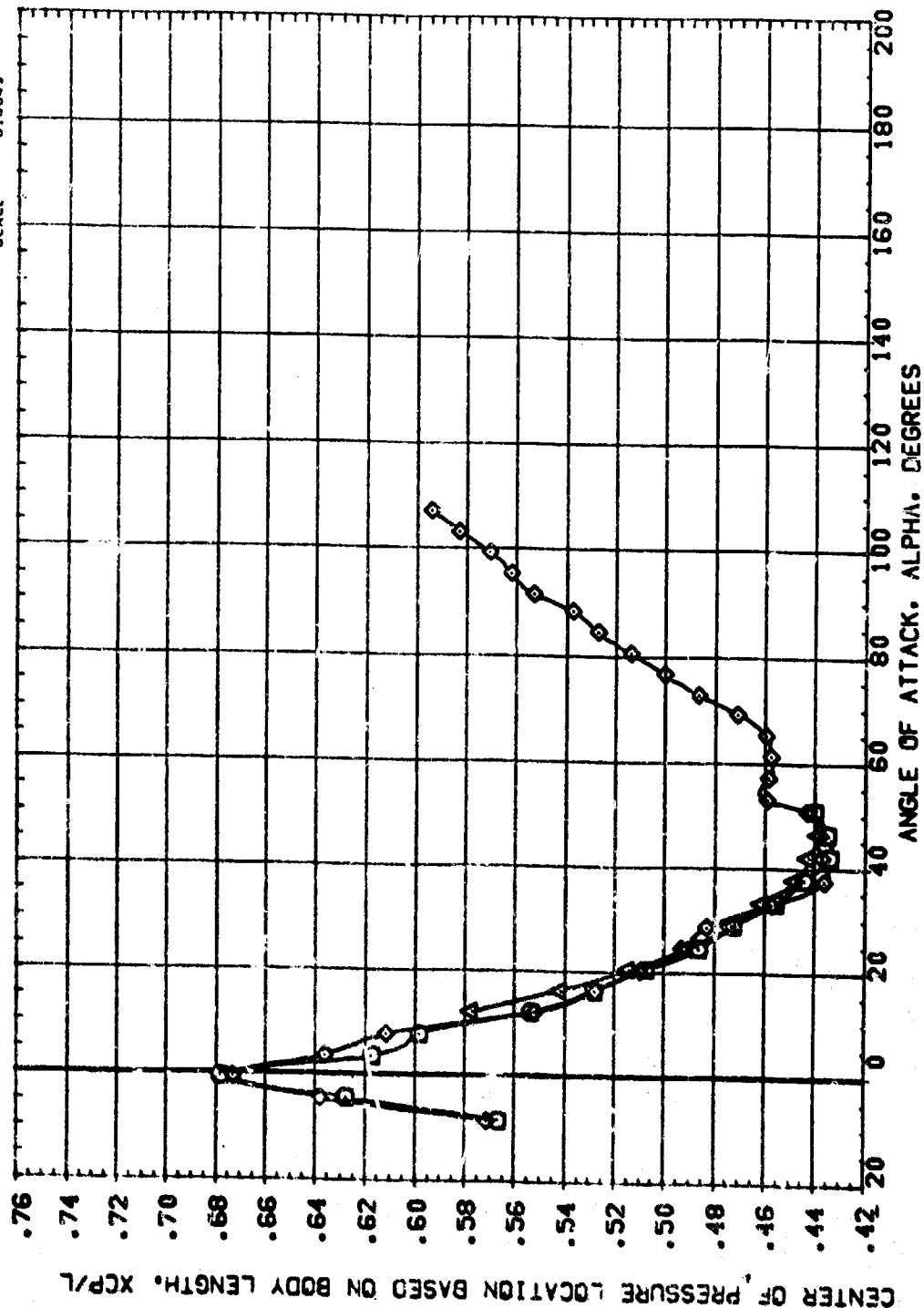


GRIT COMPARISON
(C)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PMI	PMOSTK	APTSTK	REFERENCE INFORMATION
(279100)	NSFC 554 (SALP) PER/SRB (W/STRIP GRIT)	0.000	0.000			SRP 0.5030 50.1IN
(279101)	NSFC 554 (SALP) PER/SRB (W/STRIP GRIT)	0.000	0.000			LRP 0.2500 1INCH
(279111)	NSFC 554 (SALP) PER/SRB (NO GRIT)	0.000	0.000			SRP 0.8000 1INCH
						YMRP 0.0810 1INCH
						ZMRP 0.0000
						SCALE 0.0049



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTK	APTSTK	REFERENCE INFORMATION
(2791001)	MSFC 554 (BALP) MS/MSB (W/STRIP GRIT)	0.000	0.000			SRFP 0.5030 99.1M.
(2791001)	MSFC 554 (BALP) MS/MSB (W/STRIP GRIT)	0.000	0.000			LNRP 0.8000 1NCH
(2791011)	MSFC 554 (BALP) MS/MSB (NO GRIT)	0.000	0.000			BNRP 0.8000 1NCH
						XRPP 0.0810 1NCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049

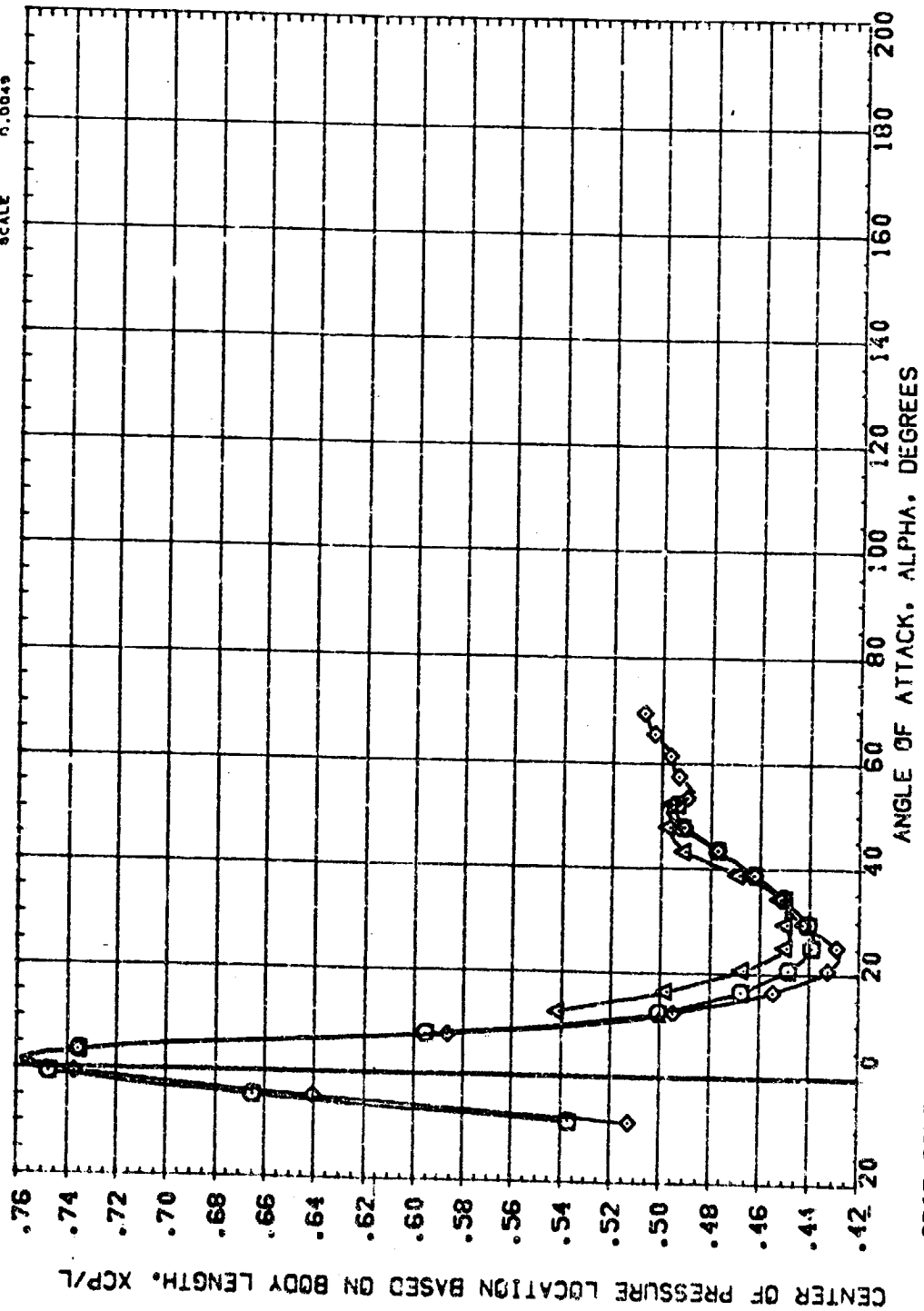


GRIT COMPARISON

(B)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

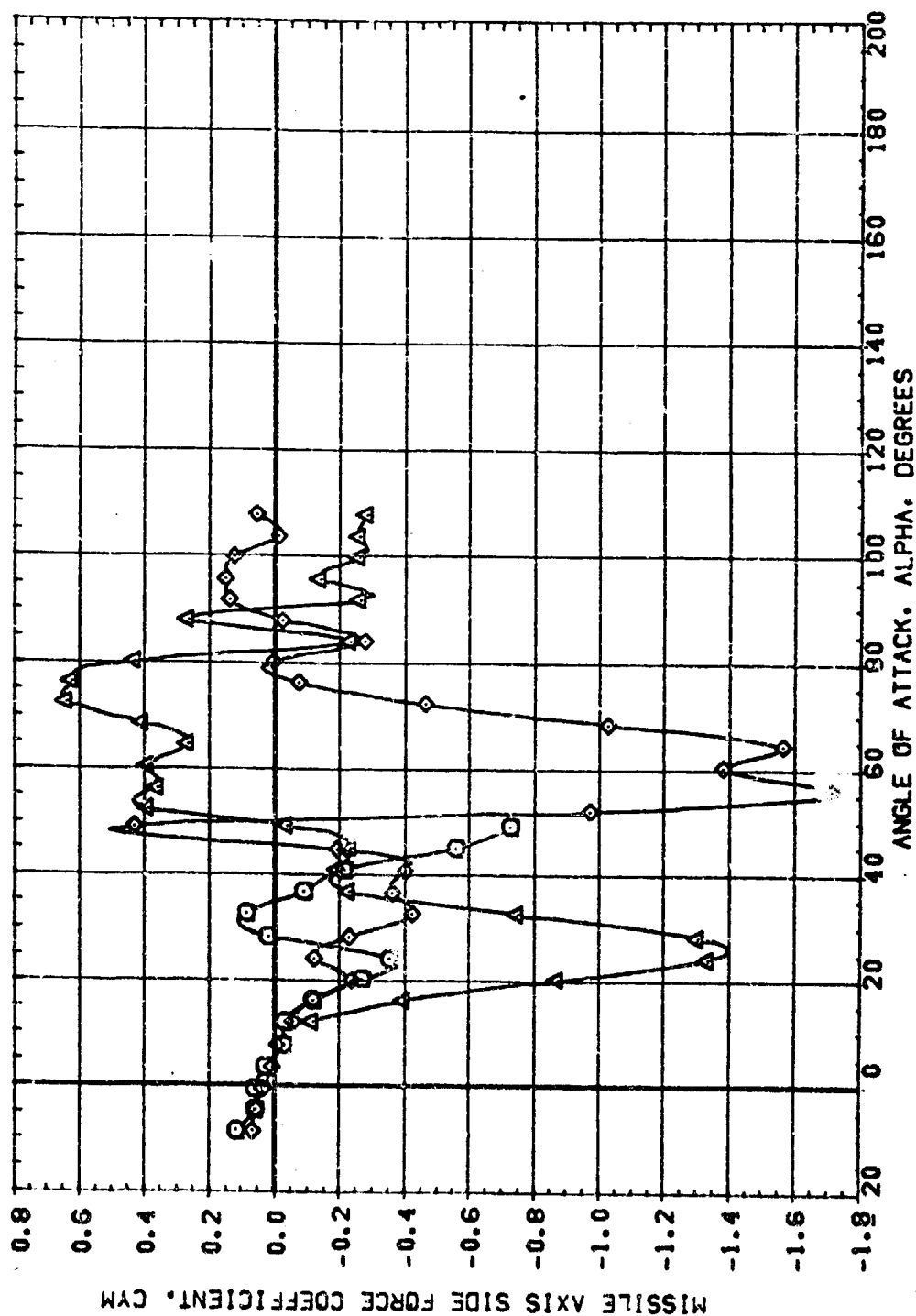
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTA	APTSTA	REFERENCE INFORMATION
(279100)	NSPC 554 (0A1P) PMR/SRB (W/STRIP GRIT)	0.000	0.000			SRP 0.8030 INCH
(279101)	NSPC 554 (0A1P) PMR/SRB (W/PULL GRIT)	0.000	0.000			SRP 0.8000 INCH
(279111)	NSPC 554 (0A1P) PMR/SRB (NO GRIT)	0.000	0.000			SRP 0.8000 INCH
						THRP 0.0000 INCH
						THRP 0.0000 INCH
						SCALE 0.0049



GRIT COMPARISON

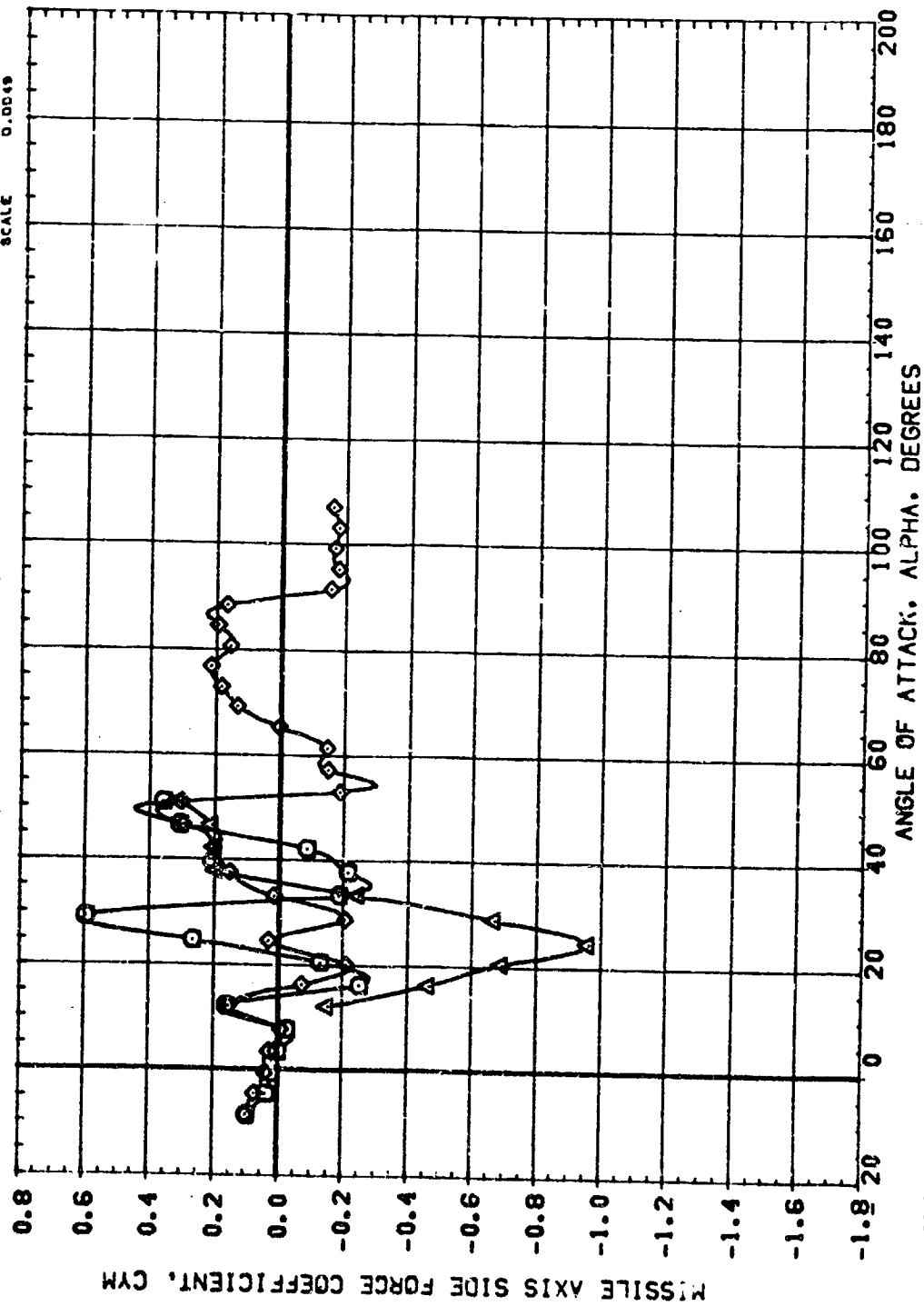
(C)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PAOSTK	APTSTK	REFERENCE INFORMATION
(279100)	MSPC 954 (SAIP) SBR/SRB (W/STRIP GRIT)	0.000	0.000			RRFP 0.9030 89.1M
(279101)	MSPC 954 (SAIP) PRS/SRB (W/PULL GRIT)	0.000	0.000			LRFP 0.8000 1MCH
(279111)	MSPC 954 (SAIP) PRS/SRB (W/GRIT)	0.000	0.000			RRFP 0.8000 1MCH
						YMRP 0.0010 1MCH
						ZMRP 0.0000
						SCALE 0.0049

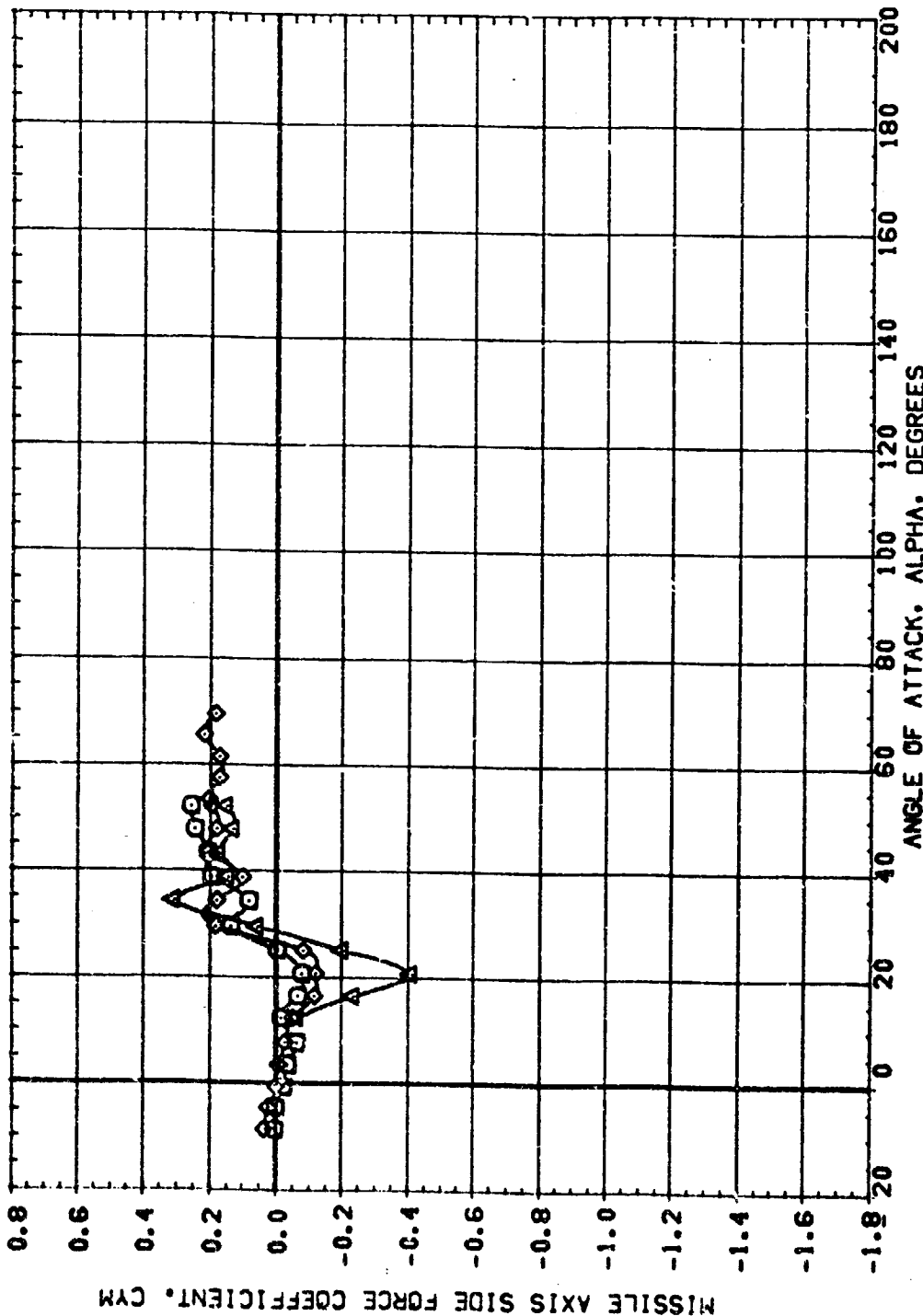


GRIT COMPARISON
(A)MACH = .59

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PMOSTN	APTSTN	REFERENCE INFORMATION
(279100)	MSPC 534 (BAIP) MR/SRB (W/STRIP GRIT)	0.000	0.000			SRZF 0.5030 88 IN.
(279101)	MSPC 534 (BAIP) MR/SRB (W/PULL GRIT)	0.000	0.000			LRZF 0.8000 1 INCH
(279111)	MSPC 534 (BAIP) MR/SRB (NO GRIT)	0.000	0.000			GRZF 0.6000 1 INCH
						YMRP 8.0910 2 INCH
						ZMRP 0.0000
						SCALE 0.0019

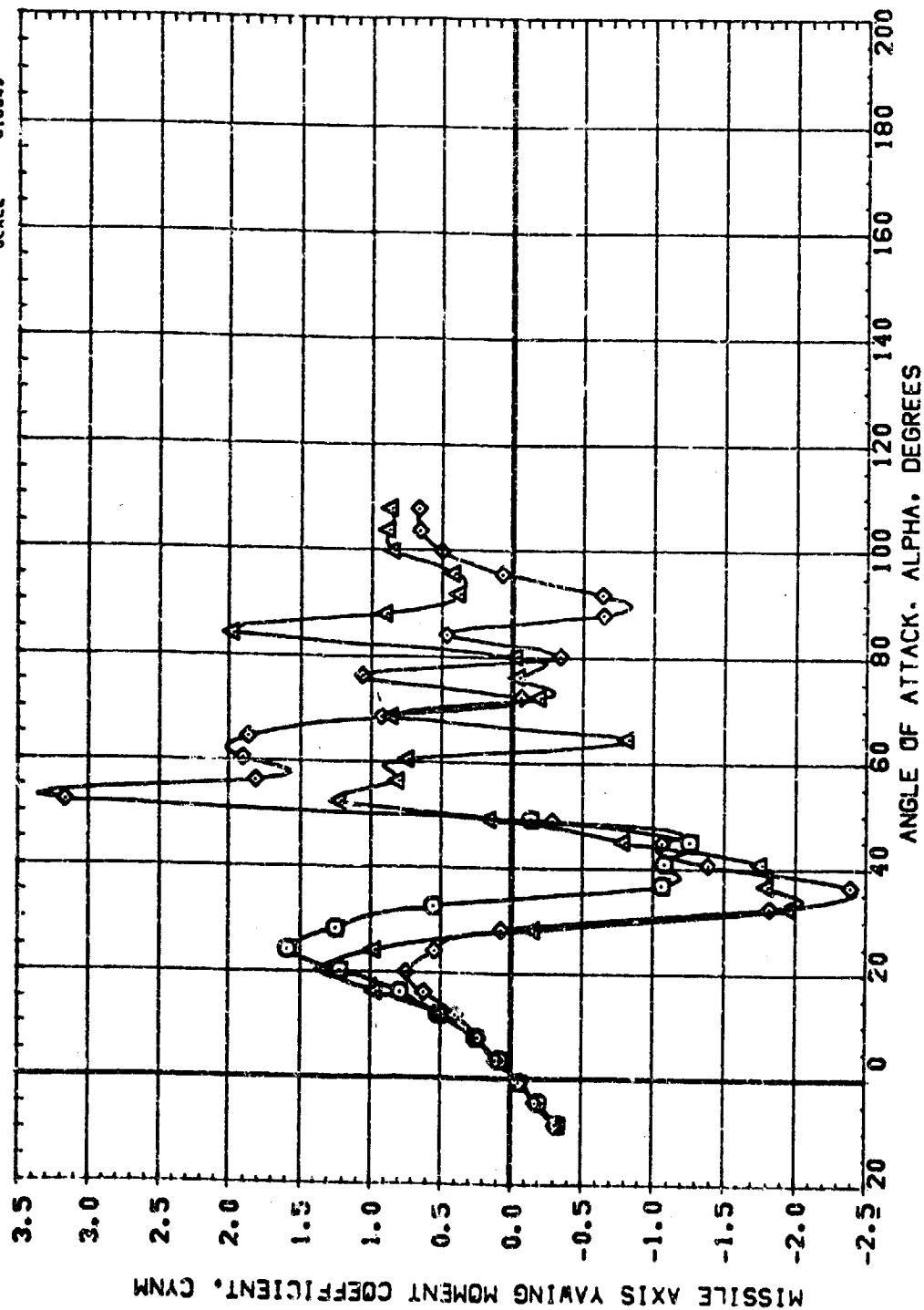


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FMOSTK	APTSK	REFERENCE INFORMATION
(279100)	MSFC 554 (SAIP) PRB/SRB (W/STRIP GRIT)	0.000	0.000			SRP 0.5030 58.1M
(279101)	MSFC 554 (SAIP) PRB/SRB (W/PULL GRIT)	0.000	0.000			LRP 0.8000 11M
(279111)	MSFC 554 (SAIP) PRB/SRB (NO GRIT)	0.000	0.000			SRP 0.8000 11M
						YMRP 0.0810
						ZMRP 0.0000
						SCALE 0.0049



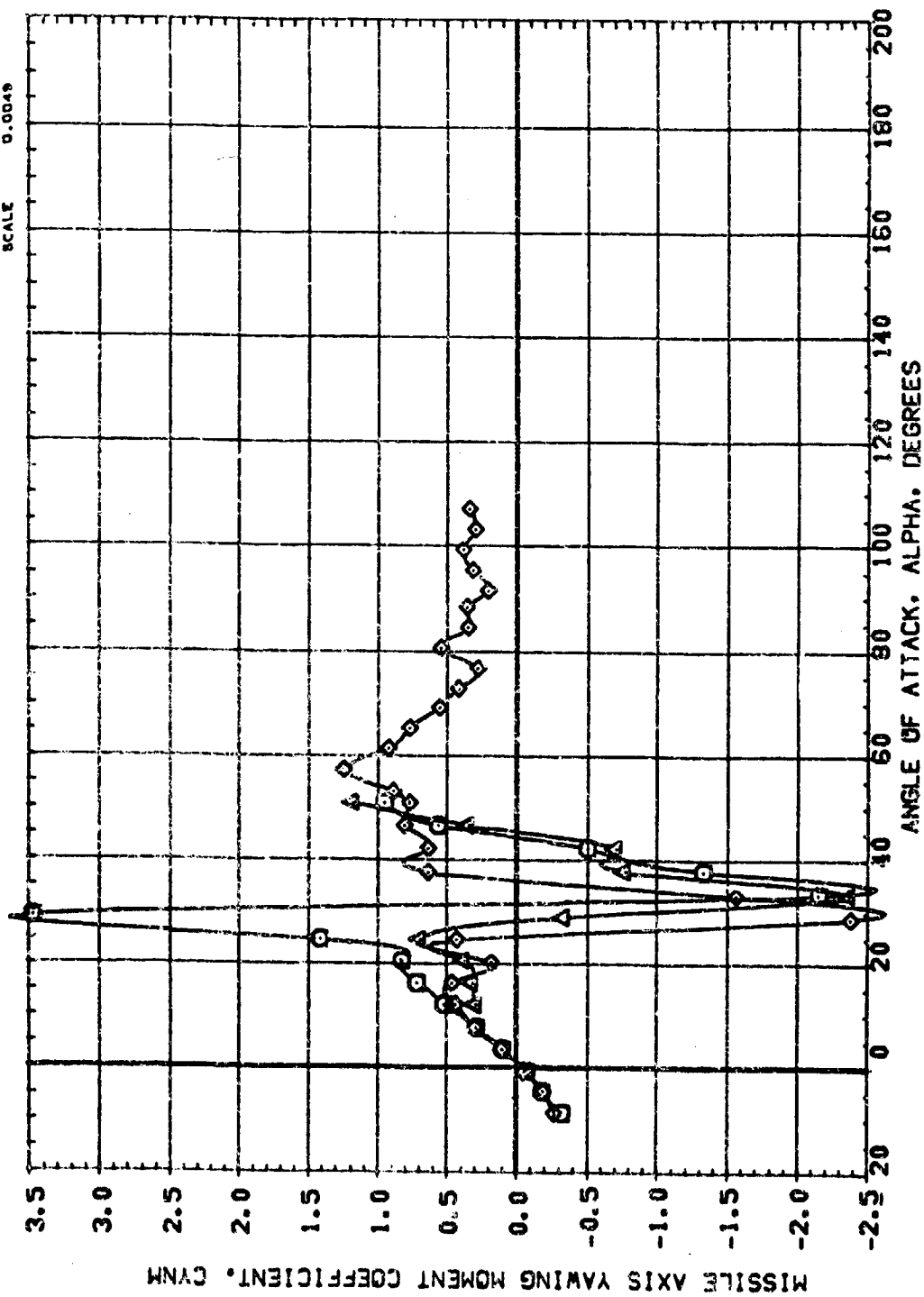
GRIT COMPARISON
(C)MACH = 1.20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PLUSTK	APTSTA	REFERENCE INFORMATION
(2791001)	WSPC 334 (ISLIP) WSP/BSB (W/STRIP GRIT)	0.000	0.000			SRIF 0.5030 29.1IN.
(2791011)	WSPC 334 (ISLIP) WSP/BSB (W/PULL GRIT)	0.000	0.000			LRIF 0.5000 1INCH
(2791111)	WSPC 334 (ISLIP) WSP/BSB (NO GRIT)	0.000	0.000			SRIF 0.5000 1INCH
						WSP 6.0810 1INCH
						WSP 0.0000
						WSP 0.0000
						SCALE 0.0049



GRIT COMPARISON
(A)MACH = .59

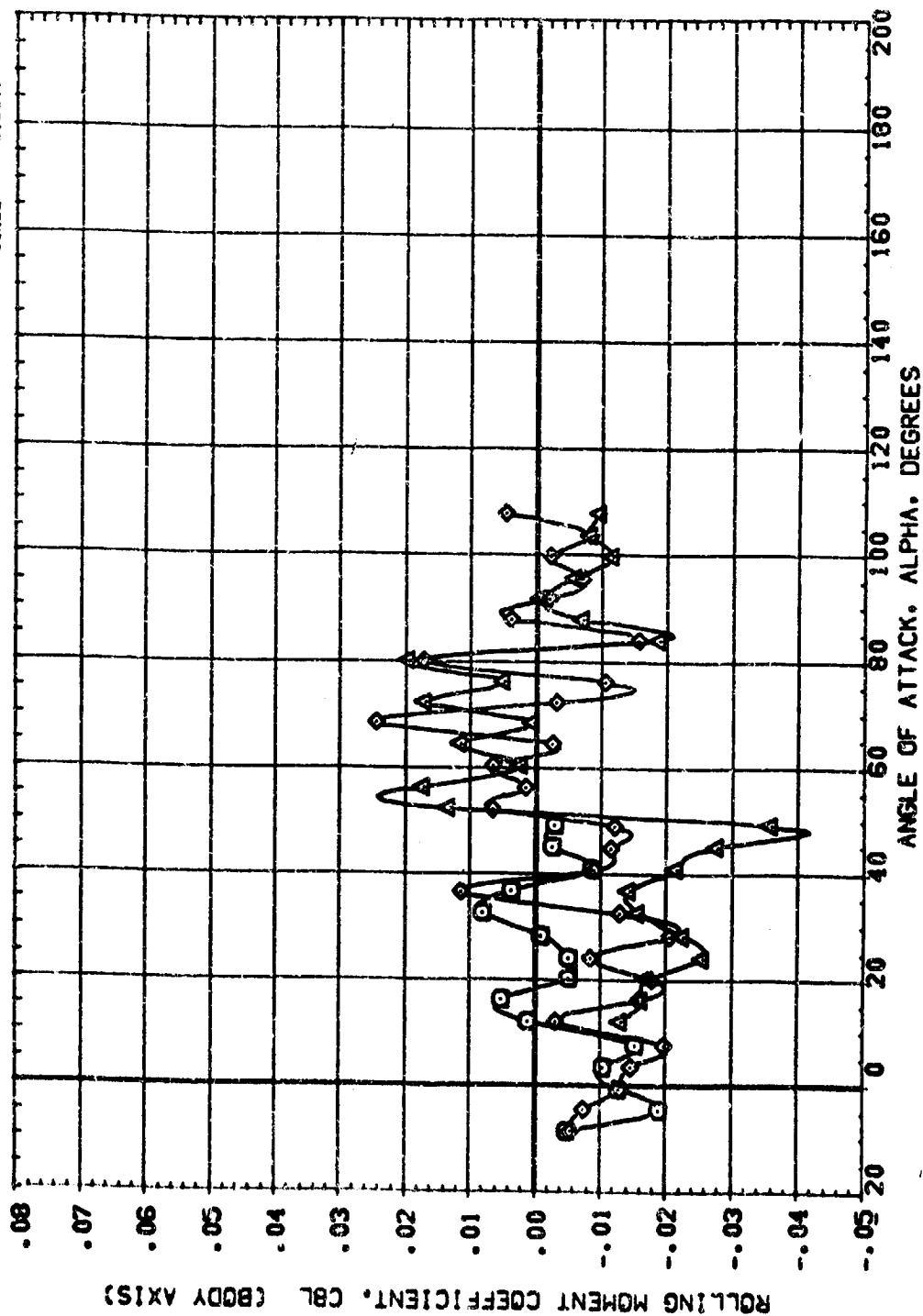
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	PHOSTK	APSTK	REFERENCE INFORMATION
(279100)	MSPC 554 (SAIP) PRR/SRB (W/STRIP GRIT)	0.000	0.000			SRFP 0.3030 36.1N.
(279101)	MSPC 554 (SAIP) PRR/SRB (W/FULL GRIT)	0.000	0.000			LRFP 0.8000 1NCH
(279111)	MSPC 554 (SAIP) PRR/SRB (NO GRIT)	0.000	0.000			SRFP 0.8000 1NCH
						MRFP 6.0810 1NCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



GRIT COMPARISON

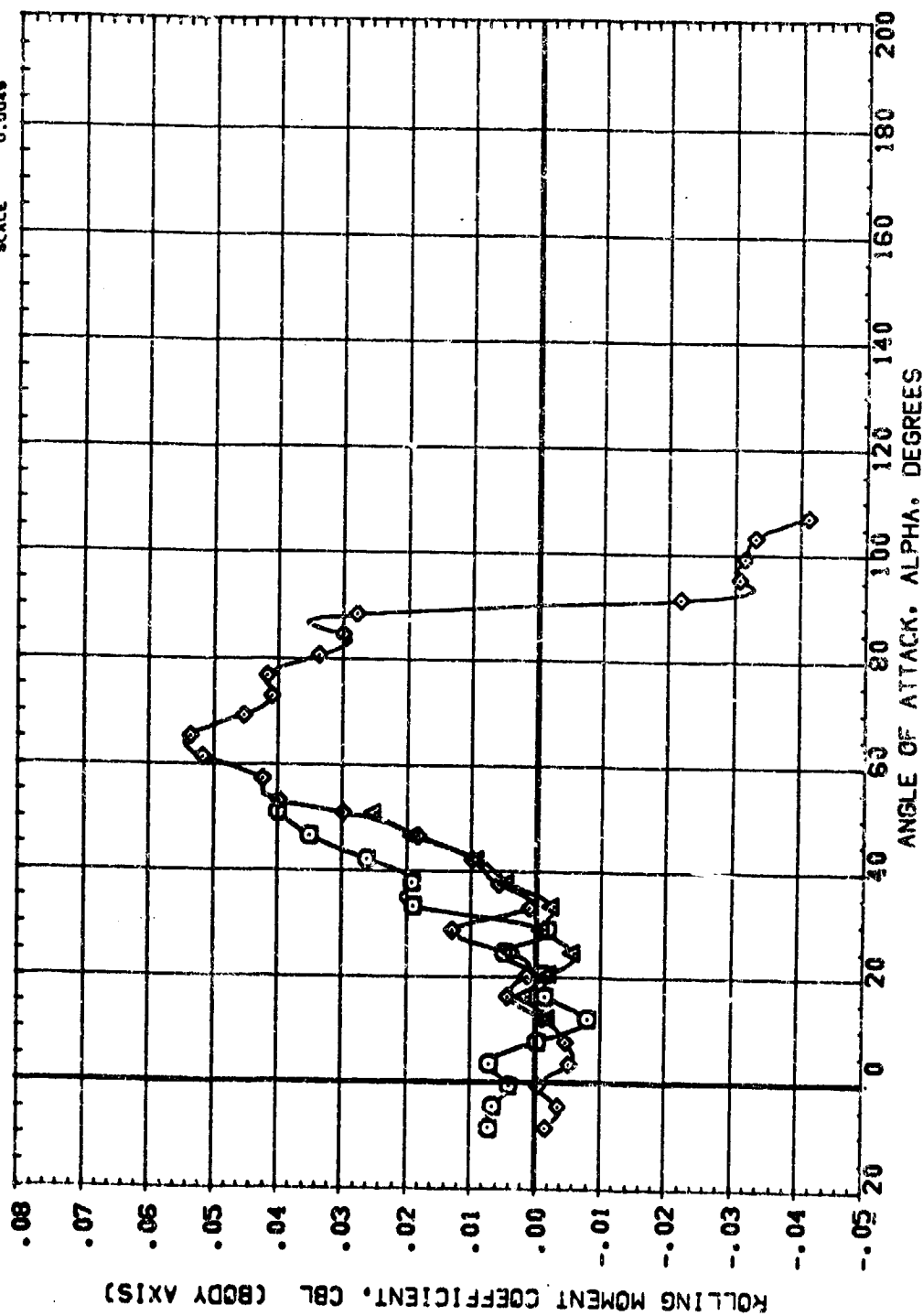
(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FWOATH	APTSK	REFERENCE INFORMATION
(270100)	NSPC 334 (SAIP) PRR/SRB (W/STRIP GRIT)	0.000	0.000			SREF 0.0030 34.1A
(270101)	NSPC 334 (SAIP) PRR/SRB (W/PULL GRIT)	0.000	0.000			LREF 0.0000 INCH
(270111)	NSPC 334 (SAIP) PRR/SRB (NO GRIT)	0.000	0.000			BREF 0.0000 INCH
						YREF 0.0010 INCH
						ZREF 0.0000
						SCALE 0.0048



GRIT COMPARISON
(A)MACH = .59

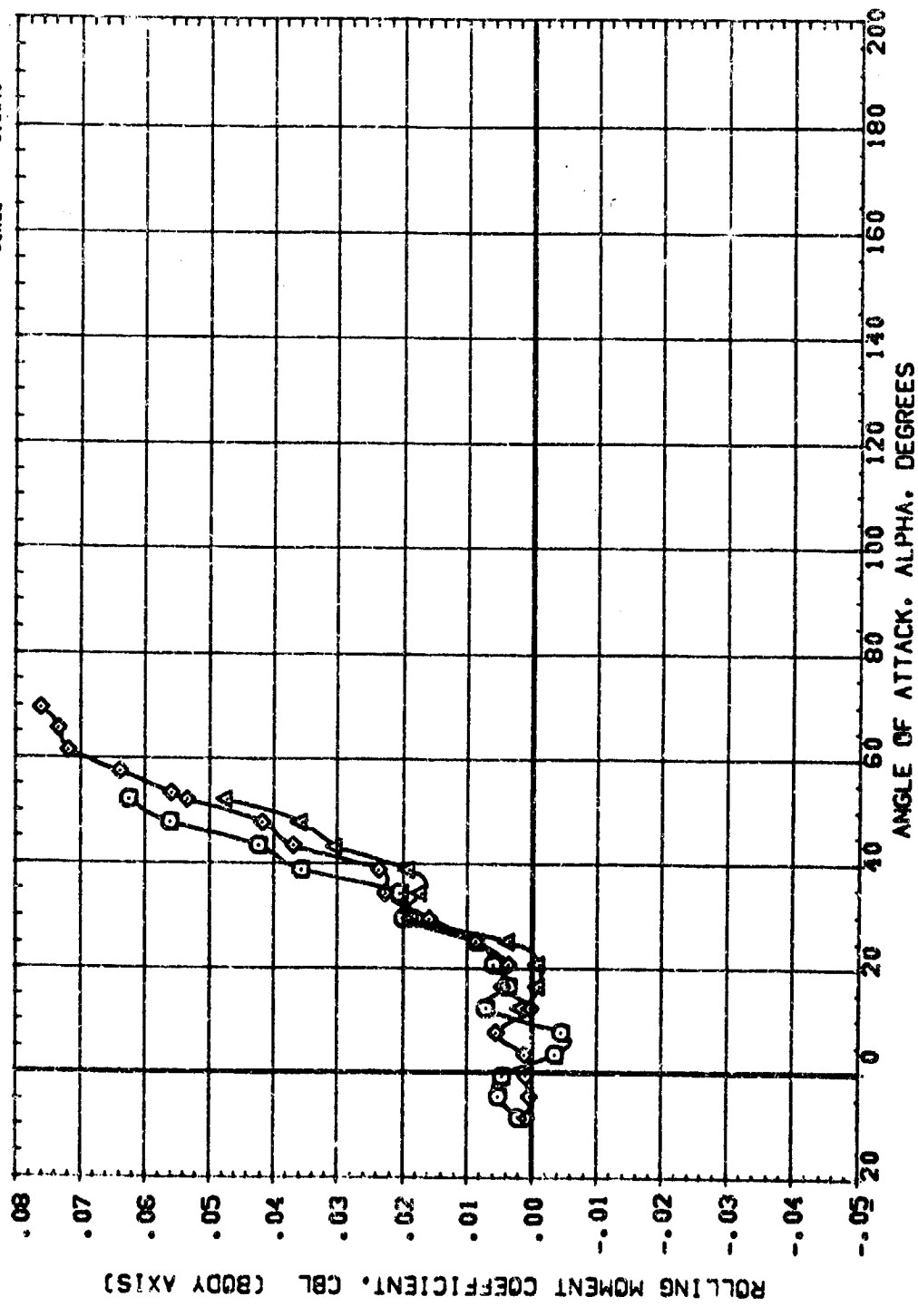
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHI	FWOSTK	APTSK	REFERENCE INFORMATION
(279100)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			SRP 0.5030 06.1M.
(279101)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			LRP 0.6000 INCH
(279102)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			SRP 0.5000 INCH
(279103)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			YMRP 0.0810 INCH
(279104)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			YMRP 0.0000
(279105)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			ZMRP 0.0000
(279106)	NSPC 554 (BALP) PRG/888 (W/STRIP GRIT)	0.000	0.000			SCALE 0.0049



GRIT COMPARISON

(B)MACH = .90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BEYA	PHI	FWOSTK	APTSTR	REFERENCE INFORMATION
(279100)	NSPC 554 (BA1P) PER/JRB (N/STRIP GRIT)	0.000	0.000			3REP 0.5030 80.1M.
(279101)	NSPC 554 (BA1P) PER/JRB (N/FULL GRIT)	0.000	0.000			LRFP 0.8000 1MCH
(279102)	NSPC 554 (BA1P) PER/JRB (N/FULL GRIT)	0.000	0.000			BRFP 0.8000 1MCH
(279103)	NSPC 554 (BA1P) PER/JRB (N/FULL GRIT)	0.000	0.000			KMRP 0.0810 1MCH
						YMRP 0.0000
						ZMRP 0.0000
						SCALE 0.0049



GRIT COMPARISON
(C)MACH = 1.20

APPENDIX

TABULATED SOURCE DATA

Plotted data listings available on request
from the Data Management System.

DATE 02 MAR 73

MSFC TWT 554

PAGE 1

MSFC 554 (SAIF) PRR/SRB (W/STRIP GRIT)

(R79A1A) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ.IN. XMRP = 6.0010 INCH
 LREF = .0000 INCH YMRP = .0000
 SRET = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

SETA = .000 PHI = .000

RUN NO. 1/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
.595	-8.600	-.95160	-.51330	.11570	-.32900	-.00490	1.39040	-.34020
.595	-4.590	-.51130	.03930	.05660	-.19270	-.01900	1.34700	-.28940
.595	-.540	-.10910	.07600	.05790	-.05100	-.01270	1.31440	-.26420
.595	3.470	.36320	-.35710	.02580	.06500	-.01030	1.34740	-.28470
.595	7.510	.70310	.10560	-.02680	.25290	-.01520	1.36140	-.24090
.595	-.540	-.11030	.04700	.04060	-.03580	-.01430	1.32690	-.26230
GRADIENT		.11096	-.04906	-.00381	.03458	.00108	.00004	.00059

RUN NO. 2/ 0 RN/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
.898	-8.650	-.93810	-.22350	.09460	-.31780	.00710	1.79760	-.37530
.898	-4.610	-.54620	.30360	.03550	-.17580	.00690	1.77140	-.32540
.898	-.540	-.08830	.11710	.01990	-.06910	.00400	1.72360	-.29920
.898	3.480	.41180	-.48470	-.00020	.09810	.00720	1.79340	-.34230
.898	7.550	.81230	-.13930	-.02630	.28650	-.00020	1.85120	-.31150
.898	-.540	-.03780	.06540	.02670	-.06870	.00240	1.73030	-.30630
GRADIENT		.11841	-.09758	-.00441	.03384	.00009	.00269	-.00211

RUN NO. 3/ 0 RN/L = 6.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
1.201	-8.700	-.93190	-.56290	.00410	-.00040	.00210	2.36300	-.29580
1.201	-4.590	-.50730	.61240	-.00030	.05660	.00520	2.19240	-.23150
1.201	-.550	-.00190	-.16910	-.02420	.24060	.00480	2.07100	-.24840
1.201	3.480	.60660	-1.18400	-.03590	.31700	-.00360	2.24170	-.32980
1.201	7.600	.96040	-.12690	-.06210	.52260	-.00480	2.37170	-.33010
1.201	-.540	.03160	-.22230	-.02130	.23260	.00840	2.07200	-.24900
GRADIENT		.14794	-.22259	-.00441	.03227	-.00109	.00535	-.01218

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MSFC 554 (S41F) PRR/SRB (W/STRIP CRIT)

(R79A1B) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

SREF = .5030 SQ.IN. XRRP = 6.0810 INCH
 LREF = .8000 INCH YRRP = .0000
 BREF = .8000 INCH ZRRP = .0000
 SCALE = .0049

BETA = .000 PHI = .000

RUN NO. 6/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLMM	CYM	CYNN	CBL	CA	CPB1
.594	12.020	1.16210	.85240	-.03260	.51930	.00110	1.32870	-.24360
.594	15.090	1.81560	1.73780	-.11570	.79250	.00520	1.33900	-.27190
.594	20.190	2.61250	2.78840	-.26880	1.21870	-.00320	1.34610	-.30300
.594	24.280	3.39220	3.87870	-.35590	1.58800	-.00510	1.31950	-.33970
.594	28.420	4.34280	5.65270	-.01800	1.24580	-.00090	1.30420	-.34550
.594	20.190	2.62770	2.81970	-.32700	1.33720	-.00070	1.34660	-.32110
GRADIENT		.19371	.28657	-.00331	.05472	-.00035	-.00755	-.00662

RUN NO. 9/ 0 RN/L = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLMM	CYM	CYNN	CBL	CA	CPB1
.897	12.110	1.36090	.55710	.16130	.51810	-.00810	1.71000	-.22090
.897	16.240	2.12780	1.56460	-.25350	.71970	-.00150	1.69100	-.32450
.897	20.440	2.93500	2.96360	-.12930	.82880	-.00120	1.57900	-.33960
.897	24.470	3.69250	5.01090	.26610	1.42430	.00500	1.42480	-.35690
.897	28.950	5.10470	7.48550	.59410	3.46020	-.00120	1.34600	-.35970
.897	20.440	2.95800	3.00030	-.11630	.82060	.00010	1.56370	-.34220
GRADIENT		.21987	.41145	.03318	.15806	.00045	-.02222	-.00407

RUN NO. 4/ 0 RN/L = 6.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLMM	CYM	CYNN	CBL	CA	CPB1
1.202	12.240	1.45040	1.58440	-.01410	.69100	.00710	2.32190	-.27890
1.202	16.460	2.20210	3.36620	-.06790	.35740	.00370	2.23280	-.28130
1.202	20.790	3.23180	5.72980	-.07650	1.00000	.00590	2.19210	-.26610
1.202	25.190	4.54090	8.61070	-.00300	.62730	.00070	2.09130	-.30070
1.202	29.610	6.09250	11.40960	.13640	.30370	.01990	1.89900	-.32160
1.202	20.620	3.93260	5.94850	-.06590	1.00030	.00600	2.16080	-.29020
GRADIENT		.26772	.57316	.00851	-.02117	.00071	-.02474	-.00244

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MSFC 554 (SAIF) PRR/SRB (W/STRIP GRIT)

(R79A1C) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BRFT = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 7/ 0 RN/L = 5.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CBL	CA	CPB1
.596	32.710	5.16200	7.47480	.08620	.55750	.00800	1.00110	-.32810
.596	36.830	6.24210	9.34760	-.08970	-1.05430	.00360	.84250	-.35050
.596	40.990	7.24710	11.46750	-.21460	-1.07570	-.00860	.67400	-.36040
.596	45.140	8.34510	13.53520	-.55890	-1.25850	-.00270	.50920	-.37970
.596	49.300	9.63980	15.57700	-.72600	-1.17620	-.00320	.32090	-.40550
.596	41.000	7.29570	11.51620	-.23620	-1.11030	.00490	.67530	-.36350
GRADIENT		.27819	.48427	-.05046	-.03820	-.00068	-.04082	-.00443

RUN NO. 8/ 0 RN/L = 6.35 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CBL	CA	CPB1
.896	33.470	6.39650	10.75070	-.16810	-2.15220	.01900	1.12110	-.36190
.896	37.600	7.73910	14.17490	-.21200	-1.33020	.01910	.95220	-.37430
.896	42.160	9.01850	17.68990	-.08710	-.50030	.02620	.79510	-.37720
.896	46.590	10.84440	21.13000	.30810	.56610	.03520	.65430	-.39160
.896	50.990	12.80840	24.02590	.35950	.95350	.04000	.44750	-.38640
.896	42.210	9.17780	16.11100	.00690	-.26380	.03180	.77570	-.37210
GRADIENT		.36356	.76760	.03691	.18497	.00135	-.03752	-.00151

RUN NO. 9/ 0 RN/L = 6.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CBL	CA	CPB1
1.203	34.330	8.17830	14.32390	.08150	.83040	.02050	1.63030	-.35690
1.203	38.630	10.36660	16.51590	.19640	-.11340	.03570	1.49740	-.35810
1.203	43.280	12.69460	17.79430	.20470	.20460	.04240	1.33120	-.36590
1.203	47.680	14.95560	18.20440	.24390	.58550	.05620	1.29240	-.43560
1.203	52.060	16.68070	19.84470	.25720	.54840	.06260	1.15330	-.40220
1.203	45.290	12.77190	17.63030	.19610	.22890	.04400	1.49700	-.42100
GRADIENT		.48745	.86760	.00907	.00278	.00236	-.02614	-.00487

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MSFC 554 (SA1F) PRR/SRB (W/FULL GRIT)

(R7981B) (22 JAN 73)

REFERENCE DATA

SREF = .3030 SQ. IN. DWRP = 6.0810 INCH
 LREF = .9000 INCH YWRP = .0000
 BREF = .8000 INCH ZWRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 28/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.602	12.020	1.19980	.61130	-.11690	.49210	-.01330	1.43100	-.23130
.602	16.070	1.78680	1.57970	-.40100	.95000	-.01640	1.45230	-.29240
.602	20.160	2.53370	2.45510	-.87450	1.31640	-.01730	1.46490	-.35010
.602	24.270	3.46080	3.71250	-1.33990	.95810	-.02570	1.38500	-.39780
.602	28.400	4.39900	5.26220	-1.30730	-1.7070	-.02260	1.28020	-.40900
.602	20.180	2.54680	2.55230	-.87840	1.28490	-.02620	1.43460	-.33160
GRADIENT		.19714	.27925	-.08101	-.03241	-.00068	-.00903	-.01027

RUN NO. 29/ 0 RN/L = 6.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.903	12.100	1.39110	.14840	-.15720	.20950	-.00220	1.63110	-.32540
.903	16.220	2.08520	1.17620	-.47170	.31530	.00120	1.77520	-.35880
.903	20.430	2.96280	2.74110	-.69740	.38140	-.00240	1.89010	-.38400
.903	24.650	3.95930	4.65300	-.96610	.60470	-.00620	1.82850	-.37610
.903	28.950	5.09650	7.42250	-.67390	-.33600	-.00120	1.46630	-.30610
.903	20.440	2.99660	2.84020	-.72240	.33230	-.00010	1.68050	-.39170
GRADIENT		.22063	.43316	-.03606	-.02099	-.00013	-.01967	-.00337

RUN NO. 30/ 0 RN/L = 6.67 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.200	12.220	1.56720	.09880	-.06670	.71310	.00140	2.39280	-.27380
1.200	16.420	2.28480	2.60290	-.23880	1.05680	-.00130	2.52410	-.28450
1.200	20.750	3.24200	5.00440	-.41150	1.28980	-.00120	2.50920	-.33620
1.200	25.130	4.56620	6.06450	-.20200	.70330	.00390	2.20230	-.39080
1.200	29.610	6.23850	11.03490	.05350	-.09990	.01850	2.07630	-.37400
1.200	20.770	3.30570	5.19670	-.37870	1.26870	.00530	2.30120	-.32640
GRADIENT		.26782	.59245	.00870	-.04639	.00091	-.01739	-.00613

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MSFC 554 (BA1F) PRR/SRB (W/FULL GRIT)

UT99B1C) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

SREF = .5030 84.1N. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0046

BETA = .000 PHI = .000

RUN NO. 27/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.601	32.730	5.26570	7.43920	-.75280	-1.96160	-.01590	1.15820	-.37970
.601	36.850	6.19200	9.63710	-.23000	-1.81680	-.01440	1.02530	-.38980
.601	41.010	7.33140	11.58030	-.19600	-1.77020	-.02160	.89220	-.37530
.601	45.130	8.37260	13.55380	-.23380	-.79860	-.02800	.73010	-.30470
.601	49.290	9.24250	15.68790	-.03870	.14370	-.03610	.53960	-.27380
.601	41.010	7.34160	11.61620	-.20930	-1.87200	-.01910	.90600	-.38610
GRADIENT	.24943	.49309	.03440	.12629	-.00130	-.03701	.00703	

RUN NO. 32/ 0 RN/L = 6.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.899	33.470	6.44680	10.13280	-.25060	-2.37240	-.00280	1.26190	-.38710
.899	37.800	7.79870	13.97650	.19170	-.77510	.00420	1.11380	-.40630
.899	42.250	9.59680	17.79850	.19360	-.70740	.00680	.99630	-.41680
.899	46.670	11.33490	21.66250	.20810	.34430	.01880	.89390	-.39910
.899	51.010	12.91870	24.18170	.31070	1.17540	.02490	.72080	-.31620
.899	42.320	9.75630	18.26530	.12460	-.72410	.00680	1.01210	-.42160
GRADIENT	.37506	.80066	.02586	.18666	.00159	-.02961	.00342	

RUN NO. 31/ 0 RN/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.199	34.320	8.18020	14.20320	.30590	.73390	.01700	1.02170	-.37190
1.199	38.780	10.48680	15.84470	.14320	1.97570	.01890	1.80670	-.43530
1.199	43.260	13.17230	18.22870	.17020	.96220	.03010	1.63250	-.44210
1.199	47.680	15.34220	17.59260	.12770	.78450	.03560	1.80610	-.43370
1.199	52.090	18.98370	19.67370	.14880	.64330	.04720	1.26870	-.38400
1.199	43.270	13.23590	16.15510	.13540	.85340	.02610	1.66390	-.44200
GRADIENT	.30583	.28436	-.00745	-.03130	.00173	-.03182	-.00053	

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (W/FULL GRIT)

(R7951D) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 249/ 0 RN/L = 5.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNM	CBL	CA	CPB1
.600	52.330	9.98600	17.23460	.39010	1.21430	.01310	.50980	-.29610
.600	56.390	10.99530	19.15900	.35900	.79680	.01700	.29340	-.31760
.600	60.460	11.01120	20.81720	.38810	.72810	.00210	.07650	-.35500
.600	64.510	12.76160	21.48310	.26500	-.82290	.01140	-.09230	-.42980
.600	68.540	13.42930	21.61000	.40620	.84630	.00030	-.25810	-.46570
.600	60.500	11.82760	20.75570	.38630	.67520	.01820	.06970	-.34870
GRADIENT	.21347	.27354	-.00153	-.05820	-.00077	-.04741	-.01113	

MSFC 554 (SAIF) PRR/SRB (W/FULL GRIT)

(R7981E) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 250/ 0 RN/L = 5.23 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNM	CBL	CA	CPB1
.599	72.260	13.46010	20.88230	.53690	-.20440	.01690	.16710	-.36390
.599	76.230	13.53670	19.45950	.62390	-.05510	.00480	.68030	-.37010
.599	80.190	13.44840	16.95820	.43010	-.03880	.01940	.87730	-.41110
.599	84.100	13.54000	13.00510	-.23510	1.97280	-.01890	1.14230	-.48470
.599	88.010	13.91730	9.17740	.26340	.68390	-.00730	1.19200	-.53120
.599	80.190	13.50750	16.47860	.47140	.28860	-.00010	1.09070	-.39110
GRADIENT	.02319	-.75848	-.04079	.10725	-.00183	.08442	-.00961	

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MBFC TWT 554

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MBFC 554 (SAIF) PRR/SRB (W/FULL GRIT)

(R7981F) (22 JAN 73)

REFERENCE DATA

SREF = .5030 30.IN. XMRP = 6.0610 INCH
 LREF = .6000 INCH YMRP = .0000
 BREF = .6000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 256/ D RN/L = 5.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYM	CYNH	CSL	CA	CPB1
.999	91.620	13.78820	2.32820	-.26480	.37540	-.00090	1.35180	-.40120
.999	95.800	13.82300	.49960	-.14050	.40510	-.00610	.89430	-.40340
.999	99.800	13.80390	-.14680	-.26250	.83720	-.01180	.28820	-.44730
.999	103.800	13.57290	-1.35640	-.25930	.87320	-.00640	-.26040	-.43070
.999	107.770	13.57320	-2.49620	-.28510	.85400	-.00990	-.70180	-.46280
.999	99.790	13.74630	-.12110	-.26850	.83350	-.00300	.30640	-.41880
	GRADIENT	-.01705	-.28832	-.00400	.03583	-.00051	-.13188	-.00377

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79C1A) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

IREF = .9030 84 IN. XMRP = 6.0810 INCH
 IREF = .4000 INCH YMRP = .0000
 DREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

BETA = .000 PHI = .000

RUN NO. 61/ 0 RN/L = 5.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CSL	CA	CPB1
.597	-8.600	-.77650	-.30530	.06810	-.31430	-.00550	1.39890	-.27740
.597	-4.580	-.45840	.20460	.05610	-.16780	-.00740	1.36300	-.23910
.597	-.540	-.08950	.04970	.03420	-.06370	-.01310	1.32680	-.21970
.597	3.470	.35610	-.24180	.00800	.11080	-.01460	.36270	-.23740
.597	7.510	.65900	.22890	-.00950	.23870	-.01980	1.39140	-.27350
.597	-.540	-.06910	.09910	.04600	-.03290	.00850	1.33250	-.22650
GRADIENT		.09869	-.05543	-.00597	.03460	-.00090	-.00005	.00022

RUN NO. 60/ 0 RN/L = 6.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CSL	CA	CPB1
.895	-8.660	-.86770	-.15450	.09810	-.26640	-.00160	1.81370	-.29600
.895	-4.590	-.52220	.35880	.06980	-.18620	-.00360	1.76530	-.28640
.895	-.550	-.10950	.08140	.03760	-.05440	-.00040	1.72560	-.27420
.895	3.480	.37650	-.44350	.02790	.11040	-.00540	1.80970	-.29570
.895	7.510	.52290	-.18030	-.00930	.29840	-.00480	1.80910	-.33750
.895	-.540	-.07610	.10810	.05490	-.06470	-.00350	1.74890	-.27120
GRADIENT		.11136	-.09940	-.00519	.03675	-.00022	.00550	-.00115

RUN NO. 59/ 0 RN/L = 6.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CSL	CA	CPB1
1.204	-8.720	-.81480	-.76750	.03500	-.09930	.00070	2.44540	-.29840
1.204	-4.620	-.53360	.38410	.02250	.00210	.00030	2.29460	-.28730
1.204	-.550	.01310	-.28450	-.00150	.21350	.00080	2.14680	-.24200
1.204	3.480	.58010	-1.13360	-.00780	.34330	.00100	2.34060	-.30740
1.204	7.600	.87710	-.01130	-.02900	.55280	.00580	2.48490	-.30770
1.204	-.550	.03310	-.35830	.00650	.17450	.00830	2.14330	-.24170
GRADIENT		.13749	-.18758	-.00374	.04214	.00008	.00961	-.00246

RUN NO. 112/ 0 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CSL	CA	CPB1
1.964	-8.790	-1.00380	-1.10250	.03880	-.11020	-.00200	1.98140	-.18630
1.964	-4.650	-.56450	.12030	.04200	-.03390	.00310	1.88090	-.18990
1.964	-.540	-.06230	.02490	.03650	-.08730	.00090	1.78440	-.17450
1.964	3.510	.50250	-.27230	.02960	.12890	.00150	1.83310	-.20010
1.964	7.680	.84210	.77190	.03050	.26780	-.00280	1.94400	-.19180
1.964	-.540	-.04100	.03170	.04880	-.06100	.00370	1.75780	-.17830
GRADIENT		.13074	-.04805	-.00152	.01964	-.00044	-.00591	-.00124

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79C1A) (22 JAN 73)

REFERENCE DATA

SREF = .5050 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .9000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 100/ 0 RM/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLM	CYM	CYNN	CBL	CA	CPB1
3.480	-8.760	-1.32650	-1.23580	.05330	-.01290	.01280	1.25510	-.09210
3.480	-4.680	-.56050	-.67870	.06970	-.06260	.01320	1.28340	-.09140
3.480	-.590	-.08320	-.02060	.06830	-.01080	.01320	1.35020	-.08980
3.480	3.920	.43780	.32070	.05280	.02900	.00270	1.31740	-.09050
3.480	7.650	1.10320	1.17550	.06890	.10130	.01550	1.27510	-.09180
3.480	-.540	-.05840	-.01670	.06830	-.01120	.01370	1.35140	-.09120
	GRADIENT	.12203	.12224	-.00206	.01120	-.00128	.00418	.00011

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MSFC 554 (SA1F) PRR/SRB (NO CRIT)

(R78C18) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

SREF = .5050 SQ. IN. XGRP = 6.0810 INCH
 LREF = .8000 INCH YGRP = .0000
 BREF = .8000 INCH ZGRP = .0000
 SCALE = .0049

BETA = .000 PHI = .000

RUN NO. 25/ 0 RN/L = 4.98 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.600	12.010	1.01460	.82480	-.05710	.39410	-.00310	1.25740	-.23290
.600	16.020	1.43780	1.52180	-.11530	.62170	-.01580	1.25980	-.30780
.600	20.130	2.02630	2.26460	-.23910	.74400	-.01780	1.24820	-.33990
.600	24.190	2.68800	3.21040	-.12210	.55330	-.00150	1.17640	-.37640
.600	28.300	3.46510	4.17650	-.22830	.07700	-.02050	1.08630	-.38560
.600	20.130	2.01140	2.28390	-.15090	.65370	-.01690	1.24740	-.33160
GRADIENT	.15100	.20598	-.00857	-.01734	-.00067	-.01143	-.00770	

RUN NO. 62/ 0 RN/L = 6.47 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.899	12.090	1.18900	.50960	.15100	.44530	-.00100	1.73950	-.35590
.899	16.180	1.77000	1.31980	-.07200	.48800	.00430	1.68610	-.38540
.899	20.350	2.48260	2.42340	-.21000	.18220	.00120	1.57250	-.40580
.899	24.540	3.31630	3.96990	.03170	.43190	.00390	1.45520	-.40030
.899	28.800	4.53390	6.01030	-.20800	-2.37920	.01300	1.33520	-.42900
.899	20.370	2.53720	2.49340	-.25770	.07120	.00240	1.38350	-.39670
GRADIENT	.19734	.32719	-.01464	-.13687	.00068	-.02490	-.00385	

RUN NO. 63/ 0 RN/L = 6.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.191	12.200	1.24070	1.45810	-.04960	.68270	.00020	2.38280	-.29360
1.191	16.380	1.82990	3.09880	-.11770	.88410	.00480	2.29360	-.34920
1.191	20.700	2.78460	5.52290	-.12040	.96220	.00370	2.21600	-.38020
1.191	25.080	4.07230	8.24820	-.08340	.47080	.00860	2.08600	-.39510
1.191	29.550	5.84400	10.98830	.18160	-.67140	.01580	1.94420	-.40970
1.191	20.720	2.84630	5.61820	-.11340	.87500	.00140	2.10390	-.38820
GRADIENT	.26915	.55843	.01163	-.07280	.00061	-.02501	-.00652	

RUN NO. 108/ 0 RN/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.957	12.380	1.66400	2.43510	.03610	.45490	.00300	1.97030	-.18720
1.957	16.730	2.81570	4.46720	.07640	.90880	.00990	1.91380	-.17980
1.957	21.110	4.36070	5.76690	.08840	.53420	.00580	1.84390	-.20320
1.957	25.470	6.03010	8.55530	.12470	.33490	.00680	1.98000	-.22650
1.957	29.830	7.83040	7.01820	.19820	.05900	.01690	1.92280	-.23940
1.957	21.100	4.43830	5.93080	.08230	.89580	.00780	1.90850	-.20180
GRADIENT	.38827	.85783	.00849	-.02211	.00070	-.00134	-.00346	

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MSFC 554 (8A1F) PRR/SRB (NO GRIT)

(R79C1B) 22 JAN 73)

REFERENCE DATA

SREF = .5030 80.1N. XMRP = 6.0010 INCH
 LREF = .0000 INCH YMRP = .0000
 BREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 99/ 0 RM/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CBL	CA	CPB1
3.480	12.240	2.16360	1.45030	.09450	.10130	-.00100	1.29950	-.09450
3.480	16.350	3.26390	1.36870	.09440	.06600	-.00140	1.35640	-.09420
3.480	20.920	4.55950	1.32460	.11750	.06330	.00370	1.46350	-.09430
3.480	24.690	5.93090	1.34830	.12910	.07590	-.00210	1.61760	-.09010
3.480	28.090	7.40720	1.61930	.13970	.10260	.00500	1.74970	-.09640
3.480	30.530	4.62510	1.35840	.11730	.05670	.00460	1.47360	-.09160
	GRADIENT	.31548	.00768	.00292	.00032	.00027	.02786	.00039

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79C1C) (22 JAN 73)

REFERENCE DATA

SREF = .5050 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 26/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.999	32.580	4.23290	5.26630	-.42560	-1.81810	-.01290	.91070	-.35700
.999	36.630	4.97380	6.29440	-.36250	-2.38490	.01140	.78040	-.40090
.999	40.730	5.53950	6.97070	-.40060	-1.38370	-.00910	.61720	-.40490
.999	44.760	6.28650	6.77090	-.19220	-1.05850	-.01160	.49750	-.30640
.999	49.010	6.67980	8.24850	.43360	-.28150	-.01210	.35150	-.29500
.999	40.730	5.26360	7.50990	.10520	.85300	-.00230	.62920	-.39150
GRADIENT		.24973	.15642	.04629	.10748	-.00052	-.03419	.00728

RUN NO. 65/ 0 RN/L = 6.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.896	33.260	5.47630	9.12520	.01720	-1.55810	.00080	1.10180	-.39350
.896	37.600	6.72600	13.02370	.15230	.63730	.00570	.98090	-.43780
.896	42.060	8.62810	16.56720	.20420	.63820	.00980	.79240	-.44010
.896	46.540	10.79970	20.64120	.29550	.81190	.01820	.65420	-.44380
.896	50.960	12.79850	23.55750	.30550	.77760	.02580	.47390	-.44110
.896	42.150	8.86960	17.27060	.23480	.77340	.01300	.80820	-.43510
GRADIENT		.42232	.82291	.01622	.10896	.00159	-.03589	-.00092

RUN NO. 64/ 0 RN/L = 8.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
1.197	34.330	6.23620	14.29820	.17860	.81080	.02260	1.72370	-.37550
1.197	36.810	10.40910	16.63090	.09990	.96210	.02370	1.63180	-.40770
1.197	43.280	12.71810	17.88570	.20070	.56160	.03690	1.45530	-.46720
1.197	47.680	14.95750	18.33410	.17880	.52890	.04170	1.29640	-.46610
1.197	52.060	16.85740	19.60360	.19350	.58090	.05340	1.03920	-.36470
1.197	43.310	12.81150	17.86920	.19760	.38080	.04030	1.48460	-.42550
GRADIENT		.49156	.27623	.00245	-.02125	.00180	-.03760	-.00098

RUN NO. 102/ 0 RN/L = 7.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
1.953	34.390	9.68120	7.89870	.21340	.13060	.01460	1.84840	-.23940
1.953	36.870	11.67260	8.74720	.19880	.08070	.02100	1.80950	-.24180
1.953	43.230	13.88570	9.69250	.19610	.01370	.02640	1.90710	-.24200
1.953	47.550	14.85220	10.61090	.18440	.14700	.03300	1.87360	-.23990
1.953	51.920	16.32900	11.93200	.16790	.22220	.03650	1.90270	-.24500
1.953	43.090	13.08970	9.04620	.19880	.08940	.02100	1.88790	-.23380
GRADIENT		.37536	.25574	-.00241	.00812	.00126	-.00271	-.00008

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79C1C) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0040

BETA = .000 PHI = .000

RUN NO. 101/ 0 RNL = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

RACH	ALPHA	CNM	CLMH	CYM	CYNH	CBL	CA	CPB1
3.480	33.280	8.95170	2.05370	.14080	-.00070	.01020	1.90110	-.08380
3.480	37.470	10.46920	2.47830	.14680	.00390	.01020	2.10220	-.08410
3.480	41.740	11.77400	4.43560	.14420	.08120	.02020	2.10390	-.08570
3.480	45.990	13.03330	6.37590	.13790	.11400	.02010	2.00930	-.08210
3.480	50.230	14.26470	8.34330	.13890	.14810	.02570	1.90180	-.07890
3.480	41.750	11.83320	4.48330	.13650	.05530	.01580	2.10580	-.08420
GRADIENT		.31091	.38864	-.00030	.00952	.00093	-.00219	.00028

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MSFC 354 (SAIF) PRR/SRB (NO GRIT)

(R79C1D) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

BETA = .000 PHI = .000

RUN NO. 214/ 0 RN/L = 5.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CSL	CA	CPB1
.596	52.210	9.94370	12.66410	-.97360	3.17040	.00660	.34460	-.36330
.596	56.320	11.25540	16.55830	-1.71100	1.81760	.00140	.12570	-.30790
.596	60.400	12.41700	18.15450	-1.38050	1.90750	.00650	-.06560	-.35720
.596	64.450	13.22290	19.01940	-1.56400	1.86850	-.00270	-.18310	-.42560
.596	68.500	13.68280	19.80770	-1.02670	.92580	.02440	-.36320	-.42420
.596	60.440	12.44010	18.32030	-1.44080	1.92190	.01410	-.07540	-.36440
GRADIENT	.24205	.41223	.00084	-.10911	.00077	-.04238	-.00586	

RUN NO. 213/ 0 RN/L = 6.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CSL	CA	CPB1
.894	53.060	13.85050	22.70600	-.16710	.89120	.03980	.51220	-.28010
.894	57.180	15.22970	25.06980	-.14950	1.24700	.04240	.42450	-.34150
.894	61.300	16.05280	26.65080	-.14320	.92910	.05170	.41570	-.38000
.894	65.330	16.51700	26.91620	.00370	.77260	.05370	.21600	-.36320
.894	69.250	16.50170	24.46800	.13350	.55820	.04520	.21640	-.36810
.894	61.320	15.96990	26.59340	-.12550	.95930	.05030	.40520	-.37740
GRADIENT	.16339	.13563	.01932	-.02793	.00055	-.01967	-.00640	

RUN NO. 212/ 0 RN/L = 6.72 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CSL	CA	CPB1
1.204	53.310	16.25500	20.14390	.20330	.80600	.05600	1.29030	-.24620
1.204	57.390	17.48500	20.84070	.17250	.75720	.06400	1.21860	-.29090
1.204	61.470	18.53700	21.30460	.17320	.67800	.07190	1.27100	-.32810
1.204	65.500	19.62320	20.63150	.21770	.68410	.07340	1.41590	-.36270
1.204	69.510	20.19990	20.32310	.18340	.69250	.07620	1.49170	-.41290
1.204	61.480	18.50500	21.25720	.17050	.67830	.06710	1.27260	-.32470
GRADIENT	.24766	.00903	.00013	-.00744	.00123	.01477	-.01000	

RUN NO. 165/ 0 RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CSL	CA	CPB1
1.953	53.090	15.31550	13.42140	-.21210	1.75660	.06720	1.84520	-.15750
1.953	57.170	16.44240	14.29830	-.12370	1.41330	.06530	1.78650	-.17840
1.953	61.300	17.67870	15.51310	-.16390	1.46010	.07350	1.64890	-.19270
1.953	65.390	18.72030	16.29550	-.11570	1.34760	.08100	1.57400	-.19830
1.953	69.470	19.63830	17.11520	-.23600	1.63720	.08890	1.52990	-.19710
1.953	61.260	17.47230	15.17150	-.22640	1.61980	.07320	1.59340	-.19000
GRADIENT	.28660	.22906	-.00096	-.00743	.00149	-.02008	-.00247	

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MSFC 554 (SAIF) PRR/SQB (NO GRIT)

(R79C10) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 147/ 1 RN/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNP	CLPM	CYM	CYHM	CBL	CA	CPBS
3.480	52.440	14.68740	8.95170	.16280	.14520	.01460	1.99990	-.05400
3.480	56.510	13.76970	10.62340	.16080	.15620	.01840	1.88480	-.04780
3.480	60.630	16.61800	12.02220	.16360	.14760	.02240	1.75520	-.04060
3.480	64.710	17.80640	13.01730	.16070	.16100	.02510	1.62800	-.03980
3.480	68.790	18.66600	13.82040	.15640	.15550	.03310	1.50330	-.03050
GRADIENT	.24440	.29663	-.00021	.00062	.00107	-.03056	.00138	

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MSFC TWI 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79C1E) (22 JAN 73)

REFERENCE DATA

XREF = .5030 92.1N, XMRP = .0810 INCH
 LREF = .8000 INCH YMRP = .0000
 DREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

DE/A = .000 PHI = .000

RUN NO. 239/ D RN/L = 5.14 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.598	72.240	13.71450	19.99000	-.46260	-.05770	-.00310	.18950	-.37320
.598	76.210	13.88640	18.81420	-.07240	1.05990	-.01060	.69230	-.34730
.598	80.200	14.12400	17.42020	.00560	-.03930	.01730	.93140	-.39740
.598	84.100	14.22880	12.94320	-.27470	.46620	-.01560	1.18850	-.51290
.598	88.050	14.56140	9.97560	-.02420	-.64160	.00380	1.13170	-.53120
.598	90.230	14.12890	17.20640	-.11820	.05530	.00440	.98340	-.41620
GRADIENT		.05154	-.65438	.01716	-.04460	.00023	.06034	-.01217

RUN NO. 238/ D RN/L = 6.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.898	72.730	16.86320	21.34870	.16400	.42430	.04090	.92890	-.36650
.898	76.640	17.06310	18.81110	.21490	.27840	.04170	1.11230	-.39090
.898	80.550	17.51070	16.15370	.15390	.54060	.03370	1.31160	-.42690
.898	84.450	17.82180	13.35520	.19540	.35210	.03010	1.38920	-.47550
.898	88.360	18.08090	11.16450	.16620	.35720	.02800	1.28510	-.30960
.898	90.550	17.24750	16.84070	.14230	.52590	.03430	1.31290	-.42530
GRADIENT		.09174	-.66027	-.00140	-.00155	-.00096	.04573	-.00948

RUN NO. 146/ D RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
3.480	72.420	19.54840	14.01780	.18410	.10280	.09750	1.47310	.00060
3.480	76.410	19.98140	14.14880	.18020	.18850	.02940	1.34990	.00810
3.480	80.430	20.41500	14.12870	.17750	.19010	.03100	1.20910	.01810
3.480	84.420	20.69110	13.81320	.19010	.17120	.03280	1.04490	.01720
3.480	88.390	20.81670	13.12140	.17820	.15490	.03150	.85560	.01900
3.480	90.430	20.43500	14.11620	.18110	.17610	.02600	1.21290	.01770
GRADIENT		.09192	-.05570	-.00004	-.00181	.00027	-.03864	.00115

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MSFC 534 (S&IF) PRR/SRB (NO GRIT)

OR79C1F) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XMRP = 8.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 240/ 0 RN/L = 5.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYN	CYTM	CBL	CA	CPB1
.400	91.830	14.37760	3.15210	.14090	-.63380	-.00210	1.27200	-.52220
.600	95.800	14.34900	1.37120	.15060	.07400	-.00710	.83120	-.42780
.800	99.810	14.30030	.88440	.12370	.50450	-.00220	.31870	-.44960
.800	103.810	14.02000	-.17850	-.01100	.65680	-.00620	-.23880	-.45260
.600	107.790	13.83400	-1.29930	.05640	.66710	.00460	-.63540	-.48810
.800	99.770	14.30510	.68840	.12880	.57340	.00480	.32570	-.45850
GRADIENT	-.03551	-.26172	-.00829	.07968	.00031	-.12234	.00108	

RUN NO. 241/ 0 RN/L = 6.53 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYN	CYTM	CBL	CA	CPB1
.899	91.490	17.78600	7.35560	-.14990	.21130	-.32190	1.54960	-.46650
.899	95.420	17.69050	5.25780	-.17340	.31840	-.03090	1.22560	-.45450
.899	99.360	17.50020	3.15690	-.16250	.58880	-.03190	.84710	-.44020
.899	103.310	16.97680	.40520	-.17520	.29950	-.03310	.45010	-.42990
.899	107.230	16.43470	-1.95300	-.15610	.34200	-.04120	-.04110	-.40910
.899	99.350	17.40920	2.97100	-.15010	.40510	-.03360	.87560	-.44620
GRADIENT	-.08678	-.59615	-.00036	.00615	-.00104	-.10051	.00354	

RUN NO. 135/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYN	CYTM	CBL	CA	CPB1
3.480	91.600	20.58370	11.89160	-.13560	.16000	-.02580	.83980	.017
3.480	95.590	20.49820	11.35400	-.16940	.00740	-.02410	.58460	.01600
3.480	99.560	20.02780	10.84920	-.18630	-.04190	-.02640	.31410	.01070
3.480	103.630	19.54770	10.20820	-.17780	-.05490	-.02050	.00840	.00390
3.480	107.630	18.51930	9.52360	-.18080	-.06220	-.02400	-.32950	-.00190
3.480	99.590	20.03440	10.83780	-.16440	.01590	-.02640	.31420	.01190
GRADIENT	-.13665	-.14667	-.00245	-.01263	.00018	-.07270	-.00127	

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MSFC TWT 554

PAGE 16

MSFC 554 (3A1F) PRR/SRB (NO GRIT)

079C10) (22 JAN 73)

REFERENCE DATA

SREF = .3030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 215/ 0 RN/L = 5.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
.598	111.520	13.58030	-2.44960	.16400	.37690	-.00700	-.79610	-.45370
.598	115.530	12.74140	-4.18880	.83100	2.39260	-.00270	-1.30900	-.42250
.598	119.530	11.98880	-6.32320	.43350	2.34580	-.00660	-1.90700	-.38000
.598	123.610	10.60620	-6.28310	.53000	2.05550	-.00570	-2.23270	-.32740
.598	127.700	9.16960	-5.30040	.16200	4.03880	.00420	-2.31030	-.30840
.598	119.510	12.08380	-6.27170	.50600	2.34690	-.00600	-1.90310	-.38630
GRADIENT	-.27129	-.19143	-.00893	.17273	.00048	-.09753	.00954	

RUN NO. 216/ 0 RN/L = 6.39 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
.897	110.810	16.19430	-3.65580	-.14920	.42510	-.03220	-.43570	-.42470
.897	114.830	15.36640	-5.01190	-.13880	.41570	-.04180	-1.00200	-.41760
.897	118.860	14.29660	-6.43870	-.15950	.33670	-.04060	-1.46920	-.40140
.897	122.950	13.43070	-6.48710	-.10990	.68890	-.04580	-1.91110	-.40450
.897	127.010	12.87300	-6.01560	-.13810	.74000	-.03660	-2.35360	-.40370
.897	118.830	14.29020	-6.40480	-.17420	.79950	-.04390	-1.45750	-.39820
GRADIENT	-.21181	-.15228	.00128	.02238	-.00033	-.11708	.00135	

RUN NO. 217/ 0 RN/L = 6.84 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
1.193	110.520	19.65790	4.56700	-.19210	.41420	-.06590	-.85300	-.45050
1.193	114.660	18.78300	3.96760	-.19850	.50440	-.06720	-1.33340	-.42090
1.193	118.730	17.82910	3.22860	-.19750	.56870	-.06090	-1.77250	-.38420
1.193	122.810	16.44790	2.16340	-.18620	.55990	-.05680	-2.17490	-.36720
1.193	126.880	15.02100	.91760	-.20320	.51510	-.05670	-2.58400	-.34830
1.193	118.710	17.66600	3.00280	-.19800	.57110	-.06690	-1.78190	-.40200
GRADIENT	-.28440	-.22422	-.00024	.00631	.00071	-.10570	.00399	

RUN NO. 166/ 0 RN/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
1.952	110.590	18.62930	5.94990	.24240	1.95210	-.06560	-.70480	-.20000
1.952	114.700	17.55120	5.78090	.19700	1.67880	-.06890	-1.18830	-.20630
1.952	118.820	16.27260	5.37770	.20000	1.73300	-.05930	-1.54770	-.20860
1.952	122.920	15.05980	4.65630	.17430	1.65250	-.05280	-1.94120	-.20720
1.952	127.030	13.50420	3.93230	.22960	1.90940	-.04290	-2.27470	-.18790
1.952	118.860	16.07290	5.10300	.27610	1.99280	-.05920	-1.43990	-.20330
GRADIENT	-.31003	-.12392	-.00118	.00317	.00150	-.09448	.00087	

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MSFC TWT 854

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MSFC 854 (SAP) PRR/SRB (NO GRIT)

(R79C16) (22 JAN 73)

REFERENCE DATA

SREF = .5037 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 134/ D RX/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYH	CYMH	CBL	CA	CPB1
3.480	111.310	17.49300	6.18250	-.07090	.32630	-.02570	-.57600	-.02210
3.480	115.370	16.44240	7.66530	-.09330	.22070	-.02510	-.97530	-.03110
3.480	119.430	15.29990	7.08750	-.12050	.16150	-.02180	-1.41420	-.03930
3.480	123.530	14.02920	6.36620	-.11130	.14030	-.01330	-1.86320	-.04440
3.480	127.550	12.69570	5.54270	-.12430	.11350	-.01640	-2.32330	-.04320
3.480	119.420	15.32690	6.96150	-.08760	.29240	-.02330	-1.40840	-.03610
	GRADIENT	-.29547	-.16187	-.00307	-.01224	.00075	-.10784	-.00137

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(079C1H) (22 JAN 73)

REFERENCE DATA

BREF = .0030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 176/ 0 RN/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
.601	130.870	9.04690	.78070	-.14100	1.10240	.02370	-2.13610	-.29400
.601	135.040	6.57970	-2.92390	-1.12150	2.87660	.01050	-2.24010	-.18600
.601	139.170	5.43590	-3.48750	-.14040	-.01350	.00340	-2.35310	-.15140
.601	143.320	4.76980	-2.29450	.26440	-.66070	.01190	-2.55540	-.07760
.601	147.400	4.00270	-1.71790	.24930	-.94330	.00380	-2.55380	-.02640
.601	139.150	5.44500	-3.43460	-.03890	-.17750	.01260	-2.35820	-.13920
GRADIENT		-.28802	-.10619	.05232	-.18435	-.00093	-.02736	.01557

RUN NO. 177/ 0 RN/L = 6.29 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
.898	129.230	13.02360	-3.11480	-.32330	.36610	-.02630	-2.28190	-.34280
.898	133.660	11.21130	-1.20140	-.33160	.40790	-.01550	-2.61470	-.30970
.898	138.120	9.10660	-.66180	-.26710	.25450	-.01270	-2.84320	-.23980
.898	142.380	7.26000	-2.70170	-.29930	.05550	-.01960	-2.96470	-.11870
.898	146.680	5.39430	-4.10330	-.16780	.17930	.00270	-2.81340	-.03070
.898	138.090	9.10080	-.86620	-.26870	.22860	-.03930	-2.82210	-.23810
GRADIENT		-.44042	-.07745	.00786	-.01666	.00119	-.03261	.01805

RUN NO. 178/ 0 RN/L = 6.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
1.195	128.180	15.06660	-1.52010	-.33440	.12430	-.04920	-2.48540	-.28380
1.195	132.590	13.53440	-1.21910	-.32740	.06950	-.03770	-2.93290	-.27780
1.195	137.020	11.76980	-1.40210	-.29060	.13960	-.02630	-3.28820	-.26290
1.195	141.470	9.90980	-1.62770	-.28930	.14120	-.02180	-3.52940	-.27320
1.195	145.840	8.02060	-2.67130	-.27960	.14080	-.01260	-3.57050	-.24480
1.195	136.980	11.73400	-1.28880	-.30120	.13490	-.03170	-3.26020	-.26830
GRADIENT		-.40062	-.06132	.00334	.00237	.00201	-.06260	.00188

RUN NO. 175/ 0 RN/L = 7.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CSL	CA	CPB1
1.976	128.460	14.11280	4.75890	-.24340	-.01780	-.02980	-2.87970	-.21070
1.976	132.870	12.58380	4.28000	-.23710	-.00770	-.02080	-3.04900	-.21410
1.976	137.220	11.08100	3.54140	-.23710	-.01640	-.01950	-3.35340	-.20080
1.976	141.650	9.45470	2.68340	-.21460	-.02970	-.00750	-3.59270	-.19600
1.976	145.970	7.94590	1.83980	-.21040	-.00770	-.00840	-3.87080	-.19060
1.976	137.140	11.14630	3.42590	-.23210	-.06590	-.01980	-3.35170	-.20840
GRADIENT		-.35306	-.17019	.00202	-.00002	.00127	-.05786	.00403

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MSFC 554 (SAIF) PRR/BRB (NO CRIT)

(R78C1H) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

BREF = .9030 SQ. IN. XMRP = 8.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

BETA = .000 PHI = .000

RUN NO. 128/ 0 RW/L = 7.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYH	CYMH	CBL	CA	CPB1
3.480	129.930	12.09550	4.22320	-.12470	-.01300	-.01570	-2.56320	-.02350
3.480	134.160	10.70370	3.70380	-.11040	-.02220	-.01090	-2.96110	-.03060
3.480	138.380	9.29740	3.04810	-.11490	-.01270	-.01010	-3.29330	-.03880
3.480	142.620	7.81470	2.53850	-.10850	-.02480	-.01420	-3.54810	-.04460
3.480	146.820	6.56370	2.15340	-.09190	.00810	-.00340	-3.66630	-.04790
3.480	150.370	5.38590	1.10490	-.11100	-.00110	-.01380	-3.50340	-.03960
	GRADIENT	-.32767	-.12360	.00160	.00093	.00050	-.06623	-.00149

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79C11) (22 JAN 73)

REFERENCE DATA

BREF = .503G 34.1N. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 DREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 186/ 0 RN/L = 5.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYM	CLMH	CYM	CYMH	CBL	CA	CPB1
.600	152.630	3.46410	-1.30520	.04080	-.32960	.00360	-2.37180	.00110
.600	156.710	2.74910	-1.37740	-.03090	.05990	.01360	-2.50440	.02350
.600	160.820	1.96780	-1.34850	-.08210	.22150	.01490	-2.38850	.06390
.600	164.940	1.32150	-1.25810	-.05540	.21440	.01470	-2.29080	.08890
.600	169.000	.71650	-.74450	-.04470	.14790	.01610	-2.11870	.10840
.600	160.800	1.95510	-1.39810	-.10560	.20030	.01400	-2.40040	.06050
GRADIENT		-.16697	.05000	-.00428	.02707	.00064	.02735	.00664

RUN NO. 182/ 0 RN/L = 6.29 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYM	CLMH	CYM	CYMH	CBL	CA	CPB1
.898	152.120	4.30200	-2.04980	-.17450	.03610	-.00480	-2.36700	-.09490
.898	156.410	3.12640	-1.05910	-.13630	.30620	-.00110	-2.68960	-.15240
.898	160.610	2.29790	-.57490	-.05810	.33480	-.00140	-2.81850	-.15750
.898	164.790	1.58410	-.15100	-.06580	.26580	.00710	-2.72530	-.12770
.898	168.930	.97560	.26130	-.05570	.23370	.00740	-2.54650	-.08930
.898	160.600	2.27000	-.55860	-.09010	.3420	.00170	-2.77490	-.13200
GRADIENT		-.19531	.13186	.00440	.00851	.00078	.01909	.00177

RUN NO. 190/ 0 RN/L = 6.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.193	151.380	6.62140	-1.81010	-.27120	-.27350	-.02220	-3.88130	-.27020
1.193	155.720	5.11590	-2.13430	.10090	-1.77630	-.02580	-3.83170	-.26170
1.193	160.140	3.34570	-2.47700	-.18290	.25460	-.00970	-3.55500	-.23920
1.193	164.520	1.97680	-1.90840	-.03390	.51170	-.00310	-3.48960	-.18360
1.193	168.780	1.07320	-1.10600	-.03210	.48630	-.00210	-3.35460	-.18130
1.193	160.090	3.36980	-2.42140	-.26090	.18730	-.01310	-3.85170	-.23900
GRADIENT		-.32667	.03771	.00786	.08826	.00138	.01787	.00724

RUN NO. 124/ 0 RN/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYM	CLMH	CYM	CYMH	CBL	CA	CPB1
3.480	152.230	5.24060	1.72580	-.09410	.09510	-.01320	-3.70440	-.04630
3.480	156.440	3.94910	1.24100	-.08360	.07980	-.00130	-3.85840	-.04510
3.480	160.610	2.80510	.49260	-.07190	.09670	-.00660	-3.88180	-.04430
3.480	164.770	1.83780	-.03890	-.08930	.08930	-.00930	-3.88480	-.04870
3.480	168.880	1.03600	-.42820	-.06600	.09170	-.00970	-3.84330	-.05220
3.480	160.000	2.87870	.55100	-.07340	.08760	-.01090	-3.88420	-.04440
GRADIENT		-.25281	-.13473	.00122	-.00048	-.00003	.00355	-.00034

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

R79C1J) (22 JAN 73)

REFERENCE DATA

BREF = .5030 84.1M. XMRP = 6.0815 INCH
 LAEF = .8000 INCH YMRP = .0000
 CREP = .8000 INCH ZMRP = .0000
 SCALF = .0045

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 202/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
.597	171.550	.37320	-.27090	-.01280	.07950	.02120	-1.91540	.11870
.597	175.580	.16070	.24250	-.01500	-.04490	.01720	-1.67480	.13330
.597	179.610	-.02130	-.15960	-.04100	-.04890	.01640	-1.52620	.12660
.597	183.650	-.16330	-.14360	-.03080	-.07810	.02150	-1.74090	.11980
.597	187.700	-.42960	.46710	-.03470	-.11730	.01780	-1.99950	.09550
.597	179.580	-.04040	-.14400	-.01700	-.10710	.01860	-1.50840	.13060
GRADIENT		-.04779	.02705	-.00136	-.01056	-.00006	-.00589	-.00149

RUN NO. 201/ 0 RN/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
.892	171.520	.53000	.82280	-.01130	.04200	.00420	-2.40330	.00760
.892	175.590	.21500	.72330	-.01700	-.06400	.00400	-2.11690	.07590
.892	179.610	-.03320	-.26570	-.04140	-.11060	.00190	-1.88190	.08860
.892	183.650	-.23610	-.69150	-.04280	-.04170	.00360	-2.18380	.04760
.892	187.720	-.60460	-.51170	-.05970	-.08840	.00030	-2.45620	-.01140
.892	179.590	-.03310	-.23470	-.03780	-.10280	.00190	-1.87400	.09330
GRADIENT		-.06724	-.10080	-.00302	-.00589	-.00020	-.00433	-.00165

RUN NO. 200/ 0 RN/L = 6.67 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
1.204	171.410	.57600	-.49820	.02250	.46120	.00410	-3.23610	-.04860
1.204	175.530	.23990	.05200	-.00660	.28390	-.00820	-3.11410	-.03690
1.204	179.620	-.01670	.04830	-.01490	.14800	.00100	-3.04590	-.04350
1.204	183.720	-.26370	.19210	-.00030	.13470	.00290	-3.13940	-.05360
1.204	187.820	-.81080	.08520	-.02520	.00110	-.00220	-3.26270	-.07040
1.204	179.600	-.01200	.08840	-.01480	.14770	.00080	-3.04110	-.04130
GRADIENT		-.07161	.08164	-.00217	-.02807	-.00009	-.00192	-.00147

RUN NO. 125/ 0 RN/L = 7.03 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
1.982	171.580	.60180	-1.11730	-.02940	.34200	-.00420	-3.86610	-.05170
1.982	175.500	.27550	-.64100	-.03100	.20830	.00040	-3.51270	-.04100
1.982	179.640	-.03320	.23840	-.03740	.14970	-.00230	-3.44610	-.02410
1.982	183.790	-.32170	.09460	-.02150	.10120	.00160	-3.62960	-.03020
1.982	187.900	-.67100	1.52410	-.04700	-.04100	.00350	-3.82890	-.04810
1.982	179.640	-.02820	.24770	-.03770	.15710	.00140	-3.47600	-.02230
GRADIENT		-.07804	.18741	-.00082	-.02112	.00040	.00144	-.00082

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MSFC 554 (SA1F) PRR/SRB (NO GRIT)

(R79C1J) (22 JAN 73)

REFERENCE DATA

BREF = .5030 80.1N. XGRP = 6.0810 INCH
 LREF = .8000 INCH YGRP = .0000
 BREF = .8000 INCH ZGRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = .000

RUN NO. 117/ 0 RN/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
3.400	171.520	.41740	-.38490	-.04660	.08030	.00350	-3.59360	-.04730
3.400	175.570	.17310	-.23660	-.04050	.10040	.00150	-3.48140	-.03470
3.400	179.630	-.00650	.22250	-.04260	.08780	-.00510	-3.44620	-.03430
3.400	183.700	-.20270	.61140	-.04510	.07210	-.00040	-3.51100	-.03850
3.400	187.740	-.52310	.74480	-.05110	.04720	.00420	-3.59860	-.05070
3.400	179.620	.00190	.20480	-.04250	.09290	.00070	-3.44160	-.03320
GRADIENT		-.05562	.07660	-.00034	-.00253	-.00011	-.00098	-.00026

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MSFC TWY 554

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MSFC 554 (SAIF) PRR/2WB (W/STRIP GRIT)

(R79D3A) (22 JAN 73)

REFERENCE DATA

BREF = .9030 84. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 18/ 0 RN/L = 5.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.598	-8.610	-.83150	-.51570	.08100	-.23150	-.00190	1.38660	-.29330
.598	-4.590	-.46650	.08320	.03940	-.08950	-.01060	1.33070	-.24900
.598	-.530	-.00990	.05230	.01760	.05730	.00440	1.30360	-.24090
.598	3.480	.39020	-.30430	-.04420	.16340	-.00560	1.34050	-.26930
.598	7.520	.74560	.28670	-.16170	.32690	-.00270	1.35050	-.25020
.598	-.540	-.08410	.00510	.02940	.03990	-.01220	1.30160	-.23620
GRADIENT		.10617	-.04793	-.01035	.03085	.00063	.00120	-.00251

RUN NO. 17/ 0 RN/L = 6.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.904	-8.670	-.94420	-.20800	.06860	-.22280	.01330	1.82470	-.33020
.904	-4.610	-.54140	.30540	.03350	-.10200	-.00250	1.77770	-.28240
.904	-.540	-.08280	.05780	.03770	-.00570	-.00660	1.70520	-.27860
.904	3.490	.41020	-.38880	-.00970	.15860	-.00170	1.78580	-.21590
.904	7.570	.82680	.06300	-.12130	.41960	.00600	1.79840	-.30310
.904	-.540	-.04890	.07520	.03500	.03590	-.00010	1.73850	-.28190
GRADIENT		.11747	-.08564	-.00780	.03216	.00010	.00097	-.00413

RUN NO. 16/ 0 RN/L = 8.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.194	-8.730	-.94600	-.72990	.01360	.10480	.01660	2.29220	-.25290
1.194	-4.630	-.59620	.38720	.00960	.17580	.00270	2.14590	-.24670
1.194	-.590	-.08080	-.13620	-.03680	.40250	-.00010	2.00240	-.22330
1.194	3.480	.85420	-.88740	-.07180	.47890	-.00110	2.18910	-.29060
1.194	7.610	.96370	-.08240	-.23690	.91730	.00620	2.27370	-.29870
1.194	-.590	-.03000	-.08820	-.03150	.41420	.00620	2.00590	-.22390
GRADIENT		.14190	-.18941	-.01004	.03741	-.00133	.00278	-.00539

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MSFC 554 (SAIF) PRR/SRB (W/STRIP GRIT)

(079038) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LAEF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .300 PHI = 45.000
 PROSTK = 1.100 AFTSTK = 1.100

RUN NO. 13/ 0 RN/L = 5.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYN	CYMM	CBL	CA	CPB1
.599	12.030	1.27320	.94040	-.37310	.81890	.00930	1.33600	-.29900
.599	16.080	1.95290	1.57460	-.76590	1.41630	.01610	1.37090	-.32070
.599	20.190	2.80850	2.40930	-1.15670	1.95730	.02710	1.41130	-.37650
.599	24.300	3.71040	3.41190	-1.42100	1.80250	.03160	1.33770	-.41260
.599	28.400	4.50150	5.06370	-.94760	.94690	.04900	1.19120	-.42720
.599	20.200	2.83650	2.38160	-1.18350	2.00030	.02840	1.41050	-.37190
GRADIENT		.20056	.24626	-.04399	.01565	.00232	-.00790	.00650

RUN NO. 14/ 0 RN/L = 6.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYN	CYMM	CBL	CA	CPB1
.899	12.140	1.42800	.83550	-.17970	.75250	.01250	1.72670	-.33080
.899	16.250	2.16380	1.71410	-.46720	1.05740	.01020	1.68110	-.39090
.899	20.450	3.00050	3.00850	-.60140	.81580	.02720	1.60660	-.41260
.899	24.670	3.95180	4.72760	-.50780	.23130	.04100	1.51570	-.38660
.899	28.930	5.02120	7.21330	-.25750	-.11000	.06000	1.37100	-.40830
.899	20.460	3.07210	3.09090	-.59450	.83360	.02250	1.63700	-.41580
GRADIENT		.21377	.37596	-.00448	-.06101	.00300	-.02115	-.00357

RUN NO. 15/ 0 RN/L = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYN	CYMM	CBL	CA	CPB1
1.204	12.270	1.59450	1.61140	-.66690	1.64630	.00320	2.27790	-.29900
1.204	16.490	2.52310	3.00650	-1.08590	1.79310	.00500	2.23980	-.30220
1.204	20.820	3.59690	5.17960	-1.11880	.85130	.01320	2.13410	-.33300
1.204	25.200	4.66840	8.42440	-.55210	.65360	.03920	2.09830	-.37180
1.204	29.620	5.11180	11.44550	-.03410	.80260	.05480	1.95530	-.39190
1.204	20.840	3.62890	5.45410	-1.08270	.79630	.01960	2.17120	-.33130
GRADIENT		.23785	.57869	.04195	-.07807	.00364	-.01606	-.00790

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MSFC 554 (SAIF) PRR/SRB (W/STRIP GRIT)

(R79D3C) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 12/ 0 RN/L = 5.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.595	32.700	5.36490	6.85580	-.46790	-2.08230	.08080	.99910	-.34160
.595	36.800	6.18390	8.47630	.09570	-1.55880	.09870	.85720	-.34870
.595	40.930	7.05880	9.79530	.00510	.39140	.09930	.69770	-.35500
.595	45.050	7.97920	11.64430	.26380	2.09860	.09960	.51700	-.36890
.595	49.210	9.62780	13.05960	.63470	4.30660	.12420	.38260	-.37540
.595	40.930	7.10630	9.78310	.01700	.39000	.10150	.70320	-.35950
GRADIENT		.23018	.38708	.05750	.39840	.00213	-.03812	-.00213

RUN NO. 11/ 0 RN/L = 6.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.901	33.450	6.28090	10.15740	-.09440	-2.27290	.08440	1.13480	-.35150
.901	37.820	8.15590	12.76520	-.60840	-2.64870	.10530	.96400	-.36780
.901	42.160	9.10290	17.08790	.13680	.46190	.11540	.81650	-.36050
.901	46.530	10.72060	20.70340	.17310	1.33500	.12990	.66050	-.36940
.901	51.010	12.90700	23.64670	-.05820	2.47660	.14370	.52860	-.39020
.901	42.170	9.13460	17.33970	.12850	.48270	.11470	.79810	-.37370
GRADIENT		.36093	.79608	.01934	.30725	.00327	-.05486	-.00133

RUN NO. 10/ 0 RN/L = 6.85 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.205	34.320	8.18260	14.23480	.04670	1.01020	.08590	1.70360	-.33860
1.205	38.810	10.37450	16.44570	.16030	1.28190	.10150	1.62320	-.39390
1.205	43.280	12.59590	18.11720	.09440	2.07690	.11960	1.48070	-.41620
1.205	47.690	14.80280	18.49800	-.01350	2.81700	.13990	1.35420	-.45290
1.205	52.070	16.63340	20.08530	-.13620	2.27490	.14820	1.18440	-.45970
1.205	45.300	12.72700	17.92090	.08940	2.11680	.12480	1.49760	-.42330
GRADIENT		.48083	.30812	-.01178	.07830	.00368	-.02944	-.00589

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NSFC TWT 554

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NSFC 554 (3A1F) PRR/SRB (W/STRIP GRIT)

(R7905A) (22 JAN 73)

REFERENCE DATA

XREF = .5030 32.1M. XMRP = 6.0210 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FLOSTK = 1.100 AFTSTK = 1.100

RUN NO. 19/ 0 RN/L = 5.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CDL	CA	CPB1
.596	-6.620	-.88350	-.63480	-.00640	-.23980	-.00340	1.39580	-.29250
.596	-4.590	-.49690	-.03230	.01070	-.06090	.00490	1.34360	-.24780
.596	-.540	-.05180	-.00500	.01180	.05670	.00840	1.30060	-.23100
.596	3.480	.41040	-.33370	-.02600	.21560	-.00560	1.34960	-.25530
.596	7.320	.77330	.25100	-.09770	.31400	-.00080	1.37080	-.27680
.596	-.540	-.05960	-.01420	-.01750	.03880	.00230	1.30600	-.23160
GRADIENT		.11287	-.03729	-.00454	.03925	-.00130	.00073	-.00092

RUN NO. 20/ 0 RN/L = 6.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CDL	CA	CPB1
.900	-6.690	-.99600	-.44910	.03490	-.15970	.01100	1.81580	-.33050
.900	-4.600	-.54920	.15680	.02700	-.03980	.00740	1.76420	-.27800
.900	-.550	-.08830	.00020	.02440	.01550	.00760	1.71070	-.27070
.900	3.490	.42180	-.44180	-.01940	.22710	-.00200	1.77340	-.29770
.900	7.570	.87850	-.03280	-.07080	.43690	.00600	1.78450	-.29550
.900	-.540	-.04330	.00430	.01800	.05950	.00880	1.71150	-.27680
GRADIENT		.12002	-.07395	-.00573	.03298	-.00116	.00116	-.00243

RUN NO. 21/ 0 RN/L = 6.78 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CDL	CA	CPB1
1.195	-6.740	-1.00170	-.74020	-.10450	.20280	.01790	2.34820	-.25860
1.195	-4.630	-.58240	.30340	-.04720	.24650	.01030	2.20720	-.26050
1.195	-.650	.01270	-.30060	-.04590	.43890	.00300	2.05910	-.23950
1.195	3.490	.80680	-1.06430	-.08650	.80640	-.00930	2.24390	-.26830
1.195	7.320	1.03830	-.04370	-.17120	.79650	-.01030	2.33850	-.29430
1.195	-.550	.03630	-.31520	-.06610	.43690	.00020	2.05520	-.23840
GRADIENT		.14670	-.16844	-.00484	.04409	-.00241	.00445	-.00484

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MSFC 554 (SAIF) PRR/SRB (W/STRIP GRIT)

(R7905B) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 24/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.600	12.020	1.35600	.97180	-.13790	.42080	.00000	1.46310	-.26470
.600	16.100	1.97600	1.90770	-.31610	.39020	-.01040	1.45660	-.30020
.600	20.220	2.84460	3.07900	-.35760	-.34280	-.00850	1.42120	-.32060
.600	24.330	3.78110	4.39710	.02780	-1.63760	-.02250	1.44770	-.37490
.600	28.470	4.92870	6.21610	.78950	-1.38860	-.01670	1.30580	-.38740
.600	30.210	2.79880	3.00200	-.36110	-.31900	-.01350	1.41440	-.32610
GRADIENT	.21720	.31565	.05359	-.13730	-.00110	-.00788	-.00778	

RUN NO. 25/ 0 RN/L = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.898	12.130	1.52200	.43420	-.21140	.36070	-.01500	1.80530	-.30640
.898	16.260	2.26010	1.62300	-.38020	.15910	-.02070	1.79830	-.33530
.898	20.490	3.16760	3.39560	-.11370	-.27560	-.01920	1.71770	-.36070
.898	24.740	4.34880	5.63200	.26310	-1.47450	-.01090	1.65690	-.38140
.898	29.050	5.70970	7.93390	.75240	-1.29330	-.00180	1.49510	-.36590
.898	30.910	3.20780	3.46930	-.12340	-.26100	-.02270	1.71910	-.36530
GRADIENT	.24750	.44958	.06099	-.11680	.00086	-.01605	-.00474	

RUN NO. 22/ 0 RN/L = 6.81 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.100	12.260	1.64300	1.43940	-.39520	1.11760	-.01030	2.27680	-.25940
1.100	16.490	2.51780	3.10430	-.63990	1.13670	-.03120	2.21310	-.26600
1.100	20.840	3.68570	5.43090	-.54790	-.07140	-.03530	2.11550	-.29660
1.100	25.230	4.99280	8.20390	.09550	-1.31680	-.01600	2.06030	-.34740
1.100	29.690	6.78190	10.96630	.56650	-.49180	.00310	1.91570	-.38460
1.100	30.840	3.74450	5.55090	-.54380	-.12060	-.03750	2.10520	-.29270
GRADIENT	.29287	.85357	.06142	-.12803	.00138	-.01990	-.00764	

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MSFC 534 (3A1F) PRR/SRB (W/FULL CRIT)

(R79E3B) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XMRP = 6.0010 INCH
 LREF = .0000 INCH YMRP = .0000
 BREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 33/ 0 RN/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CEL	CA	CPB1
.597	12.020	1.27510	.73900	-.26430	.71150	-.00170	1.43710	-.25110
.597	16.080	1.91640	1.61180	-.70190	1.14680	.00997	1.46220	-.26740
.597	20.190	2.72600	2.52180	-1.18110	1.34350	.02470	1.41640	-.34820
.597	24.290	3.68010	3.54200	-1.58980	.60510	.02500	1.34810	-.37450
.597	28.410	4.69720	5.02330	-1.59650	-.53270	.05500	1.25970	-.39410
.597	20.190	2.73110	2.59410	-1.18680	1.37370	.00950	1.45050	-.34910
GRADIENT		.21024	.25619	-.08662	-.07510	.00316	-.01243	-.00934

RUN NO. 34/ 0 RN/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CEL	CA	CPB1
.897	12.110	1.48230	.27940	-.48960	.46030	.00800	1.78370	-.30860
.897	16.240	2.22470	1.30920	-.90130	.63290	.00650	1.78010	-.34300
.897	20.430	3.00140	2.69580	-.96740	.98580	.01830	1.69230	-.37520
.897	24.670	4.02990	4.55660	-1.12900	.22500	.04030	1.60130	-.36900
.897	28.930	5.15390	6.99320	-.68200	-.44820	.05590	1.48540	-.38800
.897	20.450	3.02990	2.77230	-.84330	1.00160	.02340	1.70000	-.37260
GRADIENT		.21759	.39690	-.02199	-.05374	.00008	-.01797	-.00437

RUN NO. 35/ 0 RN/L = 6.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CEL	CA	CPB1
1.198	12.200	1.63010	.78960	-.37500	1.18200	.00810	2.31310	-.26780
1.198	16.430	2.35150	2.55060	-.73770	1.69380	.00800	2.32480	-.26050
1.198	20.740	3.38500	4.86900	-1.08420	1.09000	.01230	2.26340	-.31220
1.198	25.120	4.59780	7.71650	-.56240	.91860	.03910	2.16260	-.33710
1.198	29.570	6.18910	10.21540	-.06070	.30120	.06350	2.06720	-.36860
1.198	20.760	3.43480	4.70460	-1.08110	1.88560	.01440	2.26460	-.30980
GRADIENT		.28206	.56751	.01913	-.05927	.00337	-.01512	-.00842

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MSFC 554 (SAIF) PRR/SRB (W/FULL CRIT)

(R79E3C) (22 JAN 73)

REFERENCE DATA

BREF = .3030 SQ. IN. XERP = 6.0810 INCH
 LREF = .8000 INCH YERP = .0000
 BREF = .8000 INCH ZERP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 36/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.599	32.730	5.35270	7.35140	-.83830	-2.21800	.05580	1.16480	-.39440
.599	34.840	6.27050	9.45740	-.07860	-1.66190	.05620	1.04400	-.39840
.599	41.010	7.37630	11.53070	-.03480	-.13640	.07870	.91740	-.38660
.599	45.120	8.74180	12.66880	.00250	2.12400	.09340	.72110	-.34020
.599	49.300	10.12450	14.38300	.27280	2.57000	.10170	.54110	-.41470
.599	41.010	7.35900	11.52100	.00790	.04380	.07910	.92570	-.37360
GRADIENT		.29009	.41707	.05558	.32303	.00312	-.03791	.00042

RUN NO. 37/ 0 RN/L = 6.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.899	33.410	6.30140	10.10910	-.02390	-1.81160	.07090	1.27550	-.39000
.899	37.780	7.70410	13.67740	.44190	.20940	.08950	1.12750	-.39890
.899	42.240	9.47430	17.72160	.51120	1.21000	.11080	.99410	-.40120
.899	46.600	11.27570	20.93490	.48650	2.49040	.12440	.84630	-.38330
.899	51.040	13.17430	23.73370	.29680	3.05360	.13600	.70770	-.32970
.899	42.250	9.54760	17.81310	.51020	1.12630	.10410	.98470	-.40330
GRADIENT		.39288	.78291	.01556	.27034	.00384	-.03214	.00309

RUN NO. 36/ 0 RN/L = 6.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.198	34.510	8.17910	14.05740	.03850	1.73280	.08780	1.83550	-.38150
1.198	38.780	10.42220	16.04340	-.05730	2.56760	.10650	1.80800	-.42830
1.198	43.260	13.10530	16.48060	-.02890	2.26660	.12870	1.61220	-.44640
1.198	47.690	15.28550	17.98010	-.10360	1.97210	.14120	1.50170	-.44270
1.198	52.090	16.90530	19.86540	-.15750	1.87590	.15070	1.32760	-.44920
1.198	43.280	13.21980	16.53420	-.03730	2.27170	.12390	1.62670	-.44460
GRADIENT		.50218	.30418	-.00985	-.00706	.00389	-.02972	-.00320

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MSFC 554 (SAIF) PRR/SRB (W/FULL G31T)

(RT9E58) (22 JAN 73)

REFERENCE DATA

SREF = .9030 SQ. IN. XGRP = 6.0010 INCH
LREF = .8000 INCH YGRP = .0000
BREF = .8000 INCH ZGRP = .0000
SCALE = .0049

PARAMETRIC DATA

BETA = .000 PMI = 90.000
FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 39/ 0 RN/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CM	CLMM	CYM	CYMH	CBL	CA	CPB1
1.194	12.260	1.60510	1.26370	-.22010	.74340	-.03150	2.39520	-.28200
1.194	16.490	2.52140	3.11730	-.41020	.88590	-.03100	2.32700	-.26270
1.194	20.820	3.61660	5.29230	-.44100	.31220	-.04130	2.24450	-.29890
1.194	25.240	5.06360	8.14630	-.18640	-.96050	-.02880	2.15640	-.32510
1.194	29.730	6.84450	11.39860	-.54560	-1.41160	-.00240	2.07940	-.36430
1.194	20.850	3.89960	5.45040	-.44620	.27150	-.03990	2.24470	-.29510
GRADIENT		.29490	.57286	.04920	-.14144	.00140	-.01637	-.00522

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MSFC 554 (SAIF) PRR/SRB (W/FULL GRIT)

(079E5C) (22 JAN 73)

REFERENCE DATA

SREF = .3030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 42/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYH	CYMH	CBL	CA	CPB1
.597	32.820	6.32800	7.95100	.98330	1.33450	-.00570	1.17950	-.38890
.597	36.960	7.83810	9.60130	1.14750	3.31180	-.02200	1.09980	-.45250
.597	41.150	9.31380	11.59120	1.27170	2.85210	-.00920	.97090	-.44540
.597	45.280	10.55630	13.62840	1.52680	1.16440	-.02040	.81800	-.53510
.597	49.460	11.64810	16.05310	1.68390	-.61360	-.00190	.61360	-.60100
.597	41.170	9.43820	11.75600	1.25610	2.69620	-.02530	.97510	-.45990
GRADIENT	.32116	.48635	.04278	-.14516	.00022	-.03398	-.01217	

RUN NO. 41/ 0 RN/L = 6.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYH	CYMH	CBL	CA	CPB1
.898	33.630	7.47350	10.92100	.75380	-.76610	.02270	1.33040	-.40630
.898	37.970	9.32800	13.54980	.93620	.29570	.02810	1.21480	-.45060
.898	42.480	11.29420	17.25300	1.20700	.04680	.04330	1.04670	-.47290
.898	46.630	13.06840	20.55550	1.06630	-.78520	.04950	.90540	-.49120
.898	51.210	14.55180	23.51750	.70340	-2.41290	.06180	.78080	-.53610
.898	42.440	11.34740	17.26310	1.19900	.09500	.03800	1.04110	-.48390
GRADIENT	.40662	.73159	.00075	-.09928	.00228	-.03201	-.00682	

RUN NO. 40/ 0 RN/L = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYH	CYMH	CBL	CA	CPB1
1.195	34.460	9.57860	13.49440	.79030	.47330	.02020	1.79090	-.39120
1.195	38.920	11.95260	14.52880	.67700	.91780	.02660	1.71930	-.44250
1.195	43.410	14.16490	16.17220	.53740	-.69840	.03340	1.64270	-.48720
1.195	47.810	15.81090	18.91190	.25790	-1.53520	.03360	1.59340	-.50150
1.195	52.200	17.11740	21.07640	.21480	-1.86180	.06220	1.26340	-.45350
1.195	43.420	14.20650	16.22100	.54090	-.72870	.03580	1.65280	-.47080
GRADIENT	.43186	.44008	-.03557	-.16062	.00250	-.07656	-.00416	

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (W/FULL GRIT)

(RTTBETA) (22 JAN 73)

REFERENCE DATA

SREF = .5030 IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHZ = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 49/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.599	-8.620	-.95240	-.39880	-.07710	-.30320	-.01390	1.53370	-.25520
.599	-4.590	-.58790	.30020	.02640	-.18530	-.01190	1.46460	-.22050
.599	-.540	-.10970	.05930	.00540	-.01170	.00460	1.39110	-.20490
.599	3.470	.40900	-.48370	-.00750	.18340	-.00500	1.45610	-.22610
.599	7.520	.80150	-.02730	-.02460	.33730	-.01840	1.55050	-.26340
.599	-.550	-.13500	-.00320	.01170	-.02440	-.02060	1.39200	-.20920
	GRADIENT	.12368	-.09781	-.00421	.04574	.00086	-.00108	-.00093

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NUPC TWY 994

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NUPC 994 (SAS/P) PWR/SRS (M/FULL CRIT)

079578) (22 JAN 73)

REFERENCE DATA

BREF = .9030 66.14. WRP = 6.0610 INCH
 LREF = .6000 INCH YWRP = .0000
 BREF = .6000 INCH ZWRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 PLOSTK = 1.100 AFTSTK = 1.100

RUN NO. 46/ 0 RW/L = 9.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	OM	CLM	CYM	CYM	CEL	CA	CPB1
.998	12.080	1.23290	.75320	-.04830	.55090	-.03290	1.51820	-.27920
.998	16.040	1.63180	1.00820	-.19800	.70640	-.03090	1.52790	-.33610
.998	20.190	2.39300	2.80860	-.42300	.97520	-.04290	1.52430	-.36420
.998	24.290	3.44820	4.04440	-.56500	.36390	-.05590	1.42820	-.38010
.998	28.410	4.48370	5.08190	-.36690	-.46740	-.06590	1.36630	-.36940
.998	30.190	2.61980	2.81980	-.48750	.90690	-.04990	1.51480	-.36910
GRADIENT		.18861	.30482	-.02500	-.08019	-.00200	-.07685	-.00644

RUN NO. 47/ 0 RW/L = 6.48 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	OM	CLM	CYM	CYM	CEL	CA	CPB1
.999	12.110	1.44370	.28720	-.14460	.27010	-.01890	1.68530	-.31950
.999	16.820	2.07910	1.32970	-.12230	.19630	-.02250	1.62180	-.34200
.999	20.430	2.91480	2.90390	-.01640	.27490	-.03790	1.75810	-.38910
.999	24.690	3.94360	5.18040	-.08780	-.09910	-.03920	1.65310	-.39930
.999	28.970	5.11440	7.78000	.16470	-.24340	-.04880	1.57140	-.41720
.999	30.460	2.96780	2.98910	-.03820	.19920	-.03370	1.76120	-.36690
GRADIENT		.21648	.44733	.01529	-.08055	-.00170	-.01890	-.00599

RUN NO. 48/ 0 RW/L = 6.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	OM	CLM	CYM	CYM	CEL	CA	CPB1
1.195	12.270	1.58830	1.02190	-.02500	.70790	-.02910	2.46020	-.29380
1.195	16.430	2.29210	2.77190	-.14960	.94480	-.04390	2.42990	-.31180
1.195	20.790	3.26360	5.13020	-.20640	1.12940	-.04920	2.35190	-.35940
1.195	25.150	4.97290	7.98790	.31890	.19430	-.04390	2.25770	-.37940
1.195	29.600	6.20800	11.08490	.81030	.38390	-.04390	2.17940	-.42130
1.195	30.770	3.30080	5.94190	-.22290	1.10070	-.04470	2.36130	-.36190
GRADIENT		.26637	.58147	.02667	-.05509	-.00098	-.01831	-.00743

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MSFC TWT 554

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MSFC 554 (SA1F) PRR/SRB (W/FULL GRIT)

0709VC) (22 JAN 73)

REFERENCE DATA

BREF = .8090 50. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 43/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.599	32.740	5.20630	7.93930	.28020	-.26230	-.05860	1.22400	-.35760
.599	36.860	6.43480	9.39750	.66480	2.05030	-.07930	1.11570	-.43550
.599	41.030	7.78040	11.25390	.50050	3.17640	-.09030	.96180	-.43790
.599	45.180	8.97170	13.29220	.44410	2.85260	-.10640	.79560	-.50180
.599	49.330	10.03730	15.68500	.54890	2.28510	-.10420	.58450	-.47810
.599	41.030	7.77820	11.25480	.50620	3.21790	-.09080	.96790	-.43630
GRADIENT		.29595	.48717	.00760	.14197	-.00285	-.03854	-.00740

RUN NO. 44/ 0 RN/L = 6.34 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.898	33.480	6.45300	10.65420	.51090	.47570	-.04320	1.34540	-.53230
.898	37.850	8.21410	13.62180	.68270	3.00100	-.06910	1.24220	-.44430
.898	42.250	9.95260	16.90790	.78990	3.34780	-.07410	1.05970	-.47170
.898	46.690	12.05070	20.28810	1.11860	4.02970	-.07430	.88130	-.49110
.898	50.040	13.53200	22.08820	.71360	3.12320	-.07930	.74550	-.48380
.898	42.050	9.87070	18.15030	.74270	2.43660	-.03430	1.07240	-.48330
GRADIENT		.41068	.67514	.01934	.14464	-.00177	-.03963	-.00434

RUN NO. 45/ 0 RN/L = 6.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.194	34.300	8.23510	13.78660	.30090	2.71240	-.05360	1.80110	-.39000
1.194	38.750	10.76540	14.97230	.36630	3.64180	-.05990	1.73350	-.42840
1.194	43.230	13.90500	15.24810	.56220	2.33020	-.04290	1.86420	-.46420
1.194	47.710	15.58710	17.15900	.53950	2.16990	-.04360	1.48400	-.48200
1.194	52.090	16.98800	19.84900	.54010	2.35100	-.05460	1.26330	-.42210
1.194	49.260	13.68850	15.39490	.85610	2.32320	-.04810	1.88900	-.46070
GRADIENT		.80170	.32023	.01466	-.04951	.00122	-.03581	-.00242

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MSFC TW7 554

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MSFC 554 (BAIF) PRR/SRB (NO CRIT)

(R79FZE) (22 JAN 73)

REFERENCE DATA

BREF * .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF * .8000 INCH YMRP = .0000
 BREF * .8000 INCH ZMRP = .0000
 SCALE * .0049

PARAMETRIC DATA

BETA = .000 PHI = 22.500
 PWDSTA = 1.100 AFTSTK = 1.100

RUN NO. 257/ 0 RN/L = 6.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.898	72.740	16.80490	21.34360	.02930	1.04440	.13260	.61240	-.38670
.898	73.630	17.09270	18.81090	-.01230	1.28030	.12870	1.12010	-.38890
.898	80.540	17.38560	16.10300	.00370	1.02190	.11830	1.32270	-.40650
.898	84.450	17.72510	13.48130	.00130	.93720	.11340	1.39840	-.44650
.898	88.370	18.04230	11.18920	-.02160	.82870	.11200	1.30260	-.50290
.898	90.560	17.42870	16.14980	.01060	1.03640	.11880	1.32990	-.41380
GRADIENT		.07851	-.65624	-.00225	-.01472	-.00145	.04242	-.00742

RUN NO. 149/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
3.480	72.430	19.32460	14.32550	.06880	.64750	.08720	1.47480	.00780
3.480	76.420	19.84920	14.61330	.06880	.69200	.09870	1.34510	.00200
3.480	80.440	20.39170	14.48420	.04070	.72720	.09140	1.19980	.01380
3.480	84.440	20.62380	14.21410	.00980	.78970	.08780	1.02630	.03130
3.480	88.440	20.70350	13.71190	-.02410	.85210	.09060	.84460	.01860
3.480	90.450	20.38670	14.92880	.04080	.75830	.09530	1.19530	.01470
GRADIENT		.08574	-.04080	-.00811	.01286	-.00011	-.03943	.00127

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MSFC TWT 534

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MSFC 554 (SA1F) PRR/SRB (NO CRIT)

(R79F3A) (22 JAN 73)

REFERENCE DATA

SREF = .5050 SQ.IN. XMRP = 6.0810 INCH
LREF = .8000 INCH YMRP = .0000
BREF = .8000 INCH ZMRP = .0000
SCALE = .0049

PARAMETRIC DATA

BETA = .000 PH: = 45.000
FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 56/ 0 RN/L = 5.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.596	-8.600	-.72540	-.37450	.06250	-.28550	.01690	1.40830	-.27020
.596	-4.560	-.42670	.16300	.05630	-.11890	.00500	1.37930	-.23640
.596	-.540	-.05830	.02720	.03480	-.00640	.00770	1.34120	-.20790
.596	3.480	.36790	-.19350	-.03890	.12660	-.00550	1.37660	-.22090
.596	7.520	.73740	.30460	-.16820	.30020	.01090	1.39740	-.25850
.596	-.530	.00980	.08460	.02880	.01420	.01150	1.34140	-.21140
GRADIENT		.09883	-.04683	-.01192	.03053	-.00128	-.00034	.00193

RUN NO. 57/ 0 RN/L = 6.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.896	-8.660	-.88090	-.20980	.09610	-.17210	.02090	1.81820	-.30220
.896	-4.600	-.50280	.35410	.07760	-.12960	.01100	1.79440	-.28210
.896	-.540	-.06810	.06300	.03800	-.00380	.01150	1.74770	-.26600
.896	3.490	.42040	-.37990	-.01030	.15700	.00850	1.80590	-.28980
.896	7.570	.81230	.07090	-.14510	.42200	.01170	1.83780	-.33280
.896	-.540	-.03750	.09150	.05180	.00150	.01300	1.76460	-.27660
GRADIENT		.11411	-.09070	-.01086	.03542	-.00031	.00141	-.00055

RUN NO. 58/ 0 RN/L = 6.87 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.196	-8.720	-.84910	-.71840	.02720	.01540	.01710	2.45950	-.30430
1.196	-4.620	-.53790	.36430	.01790	.10130	.01100	2.30440	-.28880
1.196	-.540	-.01320	-.09700	-.03920	.39940	.00780	2.19600	-.28810
1.196	3.400	.54340	-.86050	-.08270	.46610	.00180	2.33740	-.31670
1.196	7.600	.96280	-.12200	-.29260	.94370	.00410	2.41560	-.31000
1.196	-.540	-.00400	-.12720	-.02610	.37680	.00520	2.15740	-.24000
GRADIENT		.13332	-.15094	-.01241	.04504	-.00113	.00399	-.00341

RUN NO. 113/ 0 RN/L = 7.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.970	-8.800	-1.05870	-1.10080	.02480	-.01140	.01280	1.87150	-.18890
1.970	-4.660	-.57910	.01080	.03050	.01180	.00710	1.88640	-.18940
1.970	-.540	-.07160	.06320	.03270	.08400	.00060	1.78360	-.18820
1.970	3.510	.46340	-.12080	-.02460	.19070	-.00310	1.88930	-.19450
1.970	7.700	.99130	.99330	-.25400	.82300	.00470	1.98900	-.19860
1.970	-.540	-.05820	.04870	.02780	.05760	-.00090	1.76750	-.16390
GRADIENT		.13003	-.01600	-.00672	.02187	-.00125	-.00242	-.00062

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MSFC TWT 884

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MSFC 884 (8417) PRR/SRB (NO CRIT)

(R78F3A) (22 JAN 73)

REFERENCE DATA

SREF = .8030 SQ. IN. XSRP = 8.0810 INCH
 LRFP = .8000 INCH YSRP = .0000
 BRFP = .8000 INCH ZSRP = .0000
 SCALE = .7049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 80/ D RM/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CSL	CA	CPB1
3.460	-8.780	-1.34480	-1.13570	.16930	-.19840	.01610	1.26630	-.09200
3.460	-4.650	-.62800	-.37270	.07990	-.03370	.01080	1.25390	-.09270
3.460	-.550	-.06510	-.04530	.07810	-.12610	.01570	1.31150	-.09080
3.460	3.530	.42920	.43800	.00570	.16540	.00640	1.31120	-.09180
3.460	7.690	1.12530	1.17270	-.13330	.33720	.00360	1.26480	-.09290
3.460	-.540	-.04900	-.03560	.07810	-.13190	.00620	1.31630	-.09200
GRADIENT		.12924	.09909	-.00908	.02430	-.00054	.00701	.00011

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MSFC TWT 554

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MSFC 554 (SA1F) PRR/SRB (NO GRIT)

(R79F3B) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = .0010 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 83/ D RN/L = 5.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.599	12.020	1.12920	.89030	-.38380	.73710	.00060	1.37620	-.29210
.599	16.060	1.69260	1.53080	-.78060	1.13390	.01250	1.37390	-.37000
.599	20.160	2.39830	2.23730	-1.12800	.72060	.02130	1.28220	-.41070
.599	24.250	3.29340	2.92410	-1.24160	-.80760	.02810	1.20170	-.40670
.599	28.350	4.23610	3.98810	-1.14800	-2.46630	.03020	1.15960	-.45790
.599	20.160	2.43000	2.18890	-1.13480	.71740	.01770	1.28490	-.40760
GRADIENT		.19135	.18581	-.04864	-.20465	.00183	-.01483	-.00901

RUN NO. 82/ D RN/L = 6.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.894	12.100	1.26590	.70530	-.21890	.67770	.01140	1.74380	-.35220
.894	16.230	1.88050	1.58000	-.38830	.75330	.01820	1.68270	-.38370
.894	20.370	2.59920	2.32200	-.58660	.11440	.02680	1.55930	-.39320
.894	24.560	3.59550	3.77560	-.58810	-1.34330	.03340	1.49300	-.40060
.894	28.810	4.48090	6.15870	-.16290	-.63320	.06410	1.41890	-.43020
.894	20.380	2.66230	2.59400	-.57330	.17600	.02300	1.59460	-.40220
GRADIENT		.19567	.31430	-.00190	.11292	.00290	-.02010	-.00414

RUN NO. 81/ D RN/L = 6.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
1.202	12.230	1.44620	1.34930	-.71010	1.64450	.00060	2.39530	-.30550
1.202	16.420	2.27580	2.63270	-1.17190	1.32050	.00230	2.31340	-.31290
1.202	20.740	3.42200	4.37330	-1.14550	-.61080	.01320	2.13390	-.34110
1.202	25.150	4.82780	7.77480	-.58470	-1.02080	.04210	2.07400	-.39070
1.202	29.620	6.19190	10.85900	-.02390	-.80280	.06840	2.03160	-.42370
1.202	20.760	3.49210	4.51580	-1.14800	-.56300	.01240	2.14720	-.33470
GRADIENT		.27255	.56144	.04581	-.16550	.00396	-.08218	-.00725

RUN NO. 109/ D RN/L = 7.13 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
1.957	12.390	1.82080	2.21650	-.75900	1.68090	-.00080	1.91720	-.18820
1.957	16.720	3.03040	3.96450	-.36180	1.68470	.00340	1.90800	-.19950
1.957	21.130	4.45990	5.89570	-.54710	.07820	.02180	1.94090	-.20770
1.957	25.470	6.11490	6.59440	-.09510	-.01870	.03700	1.94130	-.22980
1.957	29.830	7.95100	6.65710	.19370	-.08360	.04790	1.90910	-.24690
1.957	21.120	4.53070	5.52950	-.30470	.98270	.02070	1.91830	-.20570
GRADIENT		.35169	.25842	.09940	-.11882	.00296	.00026	-.00344

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MSFC TWT 554

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MSFC 554 (SAIF) FRR/GRB (NO GRIT)

(R79F3B) (22 JAN 73)

REFERENCE DATA

BREF = .9030 80.1N. XMRP = 6.0610 INCH
LREF = .0000 INCH YMRP = .0000
BREF = .0000 INCH ZMRP = .0000
SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 93/ 0 RN'L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CNH	CLMH	CYN	CYMH	CBL	CA	CFB1
3.480	12.240	2.15850	1.42970	-.17300	.68880	.00380	1.28760	-.09610
3.480	16.350	3.28940	1.34220	-.06160	.30130	.00020	1.35920	-.09540
3.480	20.520	4.56160	1.21170	.05880	.07710	.00270	1.46580	-.09590
3.480	24.690	5.96800	1.22310	.03720	.47790	.02220	1.59640	-.09210
3.480	28.890	7.43510	1.53440	.03220	.42840	.02180	1.73220	-.08860
3.480	30.530	4.63840	1.24700	.06620	.10070	.01470	1.47020	-.09160
	GRADIENT	.31782	.00320	.01220	-.00623	.00139	.02706	.00044

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NAFC TWI 554

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NAFC 554 (SAIF) PRR/SRE (NO GRIT)

(U190F3C) (22 JAN 73)

REFERENCE DATA

WREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .0000 INCH YMRP = .0000
 BREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 67/ 0 RN/L = 5.14 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.898	32.630	4.79030	5.69230	-.68560	-3.73560	.04300	.97830	-.39920
.908	36.700	5.31360	7.24370	-.42080	-1.94330	.05740	.84350	-.44480
.960	40.790	5.84060	7.98470	-.36400	-.33450	.07180	.66700	-.43810
.988	44.860	6.55090	8.57310	-.43460	.00040	.10060	.49990	-.42100
.998	49.100	9.17550	10.02620	-1.37080	3.51180	.10060	.32480	-.41400
.998	40.790	5.88450	8.09740	-.32550	-.26450	.08990	.67630	-.44770
GRADIENT		.24433	.24331	-.03414	.40061	.00396	-.04017	-.00013

RUN NO. 68/ 0 RN/L = 6.47 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.898	33.310	5.70990	9.00100	-.24250	-2.69410	.07900	1.11580	-.39300
.898	37.600	6.84070	12.51890	-.13150	-.66880	.09460	.99850	-.44780
.898	42.030	6.67280	16.06600	-.19190	.69680	.11000	.81190	-.43700
.898	46.530	10.82770	20.46680	.06650	1.63470	.12750	.65600	-.41870
.898	51.000	13.11060	23.16030	.06700	3.12340	.13760	.46110	-.39440
.898	42.070	8.85120	16.57460	-.14450	.79470	.12480	.81240	-.44070
GRADIENT		.42427	.81810	.01847	.31599	.00339	-.03728	.00063

RUN NO. 69/ 0 RN/L = 6.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
1.196	34.330	8.20930	14.48820	.03480	.43670	.07630	1.73610	-.38180
1.196	38.820	10.43670	16.68620	.07900	1.18380	.09120	1.64450	-.41780
1.196	43.290	12.68640	18.31740	.07660	1.95840	.11130	1.40930	-.41790
1.196	47.690	14.35850	18.68040	-.06130	2.42820	.12770	1.31400	-.44050
1.196	52.060	16.67780	19.92570	-.16960	2.45450	.13970	1.07260	-.36130
1.196	43.310	12.73710	18.18140	.06790	1.92840	.11130	1.42240	-.41370
GRADIENT		.48193	.29083	-.01231	.11928	.00369	-.03758	.00039

RUN NO. 103/ 0 RN/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
1.960	34.330	9.74710	6.80170	.05740	.71770	.05540	1.82600	-.22930
1.960	38.730	11.42690	8.16180	.04790	.62190	.06000	1.87400	-.23370
1.960	43.160	13.22580	9.18640	.01430	.68220	.07910	1.88160	-.25060
1.960	47.550	14.85970	10.49430	-.03680	.78860	.09240	1.83760	-.24910
1.960	51.940	16.36570	12.00130	-.06260	.94200	.11160	1.78670	-.25480
1.960	43.100	13.18340	8.98340	.01330	.86100	.07700	1.88640	-.24180
GRADIENT		.37852	.28914	-.00738	.01397	.00311	-.00218	-.00145

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79F3C) (22 JAN 73)

REFERENCE DATA

BREF = .9030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 89/ 0 RN/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CMH	CLMH	CYH	CYMH	CBL	CA	CPB1
3.480	33.290	8.99270	1.99520	-.02510	.39160	.03210	1.89340	-.08560
3.480	37.470	10.58420	2.26970	-.02900	.48760	.04120	2.08410	-.08540
3.480	41.750	11.92980	4.14530	-.04250	.58850	.05470	2.09080	-.08320
3.480	46.000	13.18790	6.18800	-.04870	.64830	.07150	2.01730	-.08250
3.480	50.240	14.39990	8.18640	-.06210	.74570	.08960	1.89420	-.07750
3.480	41.760	12.01150	4.24390	-.03550	.37610	.06700	2.09610	-.06290
	GRADIENT	.31620	.38445	-.00221	.02047	.00343	-.00157	.00045

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F3D) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XMRP = 6.0010 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 230/ 0 RN/L = 5.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
.597	52.270	11.22560	14.34130	.63870	1.90220	.14190	.30600	-.42140
.597	56.340	12.07290	16.57480	.83560	3.59320	.14650	.11860	-.31390
.597	60.410	12.89350	18.31750	-1.95750	.33740	.14760	-.00430	-.36980
.597	64.460	13.58540	19.14720	-1.85360	-1.13710	.14090	-.17980	-.41030
.597	68.510	14.25210	20.00260	-1.42550	-1.75540	.13480	-.32180	-.43620
.597	60.450	12.91840	18.31920	-1.94850	.29850	.14530	-.07150	-.36480
GRADIENT		.18637	.34244	-.16823	-.30752	-.00049	-.03829	-.00309

RUN NO. 222/ 0 RN/L = 6.48 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
.899	53.060	13.68550	22.56650	-.44940	2.87260	.14910	.48730	-.31880
.899	57.210	15.25740	25.23500	-.47060	3.10210	.16390	.41850	-.36140
.899	61.330	16.10680	27.32040	-.31620	2.51570	.16730	.37300	-.36020
.899	65.350	16.56380	26.98090	-.25480	2.54460	.16270	.29950	-.37400
.899	69.250	16.70340	24.35130	-.18720	2.35600	.16270	.32180	-.39740
.899	61.370	16.06020	27.20470	-.30440	2.55440	.15850	.37200	-.36250
GRADIENT		.16224	.11594	.01327	-.03931	.00065	-.01111	-.00419

RUN NO. 223/ 0 RN/L = 6.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
1.195	53.340	16.36280	20.24660	-.16150	2.14770	.15490	1.20640	-.27120
1.195	57.400	17.65390	21.00590	-.18450	2.02170	.15720	1.31880	-.30860
1.195	61.460	18.76250	22.26440	-.15950	1.91350	.17140	1.37530	-.34060
1.195	65.530	19.68670	21.51890	-.12410	2.20780	.17710	1.42950	-.37000
1.195	69.510	20.45170	20.34120	-.17300	1.98880	.18310	1.49450	-.41950
1.195	61.500	18.78670	21.23020	-.16470	1.92470	.17230	1.37970	-.35780
GRADIENT		.25191	.01777	.00093	-.00343	.00191	.01400	-.00883

RUN NO. 168/ 0 RN/L = 7.14 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
1.959	53.060	15.30230	12.06990	-.34420	2.11640	.12720	1.81680	-.14290
1.959	57.140	16.55900	13.70570	-.23780	1.95720	.13770	1.74090	-.16810
1.959	61.260	17.67960	14.87200	-.30870	2.15730	.14630	1.63430	-.19280
1.959	65.330	17.78280	15.71210	-.28000	2.09010	.15280	1.58470	-.20370
1.959	67.780	19.13340	16.06010	-.35660	2.24740	.16920	1.54920	-.20010
1.959	61.270	17.54780	14.53030	-.31520	2.12430	.14140	1.60230	-.19080
GRADIENT		.27002	.22290	-.00152	.01981	.00260	-.01915	-.00487

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NSFC 534 (SAIF) PRR/SRB (NO GRIT)

(R79F3D) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0010 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0043

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWCSTK = 1.100 AFTSTK = 1.100

RUN NO. 148/ 0 RN/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLPM	CYM	CYNM	CBL	CA	CPB1
3.480	52.460	14.55300	9.14170	-.10210	1.13390	.09700	1.94130	-.03140
3.480	56.530	15.74230	10.55260	-.08530	1.07900	.10670	1.86380	-.03500
3.480	60.620	16.83500	11.84610	-.08230	1.06930	.12110	1.74820	-.03040
3.480	64.670	17.81240	12.87340	-.08880	1.11270	.12470	1.63850	-.01940
3.480	68.740	18.71410	13.66990	-.09650	1.12310	.13830	1.52380	-.01480
3.480	60.630	16.66230	11.89910	-.09320	1.08850	.11130	1.74280	-.02980
GRADIENT		.25534	.27960	.00009	.00029	.00247	-.02605	.00120

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79F3E) (22 JAN 73)

REFERENCE DATA

SREF = .5050 INCH XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 253/ D RN/L = 5.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CM	CLMM	CYM	CYMM	CBL	CA	CPB1
.595	72.250	14.16930	20.33100	-.80840	-2.61950	.16070	.33110	-.36360
.595	76.220	14.18940	19.35340	-.20920	-2.10950	.15570	.79580	-.33680
.595	80.180	14.25210	16.89450	.24520	-.08960	.14950	1.01480	-.38020
.595	84.090	14.18090	12.63590	-.14990	1.90590	.12230	1.16330	-.44060
.595	88.050	14.61890	9.81770	-.05230	1.26050	.11160	1.05120	-.51160
.595	90.200	14.19030	16.75400	.04110	.67410	.14540	1.05180	-.56220
GRADIENT		.02255	-.70235	.03998	.29846	-.00333	.04587	-.01012

RUN NO. 251/ D RN/L = 8.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CM	CLMM	CYM	CYMM	CBL	CA	CPB1
.895	72.720	16.76170	20.59400	-.17790	2.21390	.16520	.58580	-.35360
.895	76.610	16.99370	18.49950	-.17330	1.99110	.16970	.98240	-.36390
.895	80.530	17.44970	16.02910	-.17210	1.72930	.16240	1.24640	-.39640
.895	84.440	17.74620	13.54360	-.23350	2.02010	.17300	1.57660	-.44730
.895	88.370	18.28270	11.03860	-.26210	1.94470	.18130	1.26310	-.49000
.895	90.370	17.38960	16.00450	-.16490	1.71840	.16750	1.24320	-.39100
GRADIENT		.09690	-.64059	-.00584	-.01305	-.00012	.04468	-.00910

RUN NO. 144/ D RN/L = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CM	CLMM	CYM	CYMM	CBL	CA	CPB1
3.480	72.410	19.43720	13.94860	-.09160	1.12340	.12680	1.46780	.01830
3.480	76.410	20.06180	14.15180	-.10340	1.07760	.12500	1.39080	.02440
3.480	80.430	20.34050	14.09730	-.10310	1.03410	.13140	1.21190	.03460
3.480	84.420	20.81260	13.67930	-.10510	.99570	.13090	1.09130	.03170
3.480	88.390	20.93170	13.04110	-.09520	.99010	.13190	.86800	.02900
3.480	90.430	20.54230	14.09590	-.09180	1.07110	.13100	1.21470	.03300
GRADIENT		.09563	-.05712	-.00022	-.01072	.00039	-.03756	.00072

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F3F) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SG. IN. XMRP = 6.0010 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 232/ 0 RN/L = 5.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.599	91.850	14.67580	3.66100	-.67450	3.19890	.13580	1.22270	-.44270
.599	95.810	14.72890	2.11210	-.72540	3.53910	.14300	.81730	-.51810
.599	99.830	14.25130	1.64660	-.37620	2.70150	.12560	.27500	-.49060
.599	103.820	14.05170	.00980	-.26180	2.57880	.11390	-.32320	-.49150
.599	107.790	13.81740	-1.57020	-.82720	3.12000	.10240	-.69300	-.49300
.599	99.810	14.26130	1.67850	-.36590	2.74090	.12340	.31340	-.52220
GRADIENT		-.06004	-.31494	.00402	-.03316	-.00241	-.12466	-.00185

RUN NO. 231/ 0 RN/L = 6.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.899	91.500	17.98920	7.82780	-.48450	1.57710	.11620	1.50570	-.46380
.899	95.440	17.84640	5.83900	-.43930	1.65020	.11490	1.21220	-.46650
.899	99.380	17.70040	3.75220	-.40880	1.72160	.11400	.83560	-.46030
.899	103.300	17.52040	.96820	-.51920	1.85790	.11490	.47120	-.44350
.899	107.220	16.78110	-1.76740	-.55420	1.84190	.11420	.01720	-.41680
.899	99.370	17.59650	3.73130	-.48110	1.82350	.11410	.86930	-.46780
GRADIENT		-.07483	-.61219	-.00680	.01876	-.00010	-.09460	.00369

RUN NO. 138/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
3.480	91.580	20.77140	11.70540	-.39950	.84500	.07030	.68420	.02770
3.480	95.570	20.59320	11.01710	-.42430	.74930	.07470	.62660	.02400
3.480	99.570	20.10280	10.41060	-.44420	.67250	.07220	.54640	.01650
3.480	103.600	19.42750	9.68790	-.44610	.60680	.07340	.03530	.00710
3.480	107.600	18.60610	9.05830	-.44130	.57310	.07150	-.32230	-.00060
3.480	99.570	20.12070	10.49070	-.43700	.66250	.07590	.35590	.01650
GRADIENT		-.13722	-.16530	-.00284	-.02211	.00004	-.07499	-.00185

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(079F36) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 227/ 0 RN/L = 5.20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.600	111.490	13.73440	-3.38030	-1.04280	2.67030	.12730	-.87150	-.47400
.600	115.500	12.82320	-5.05400	-1.24740	2.04650	.11140	-1.30850	-.43660
.600	119.530	11.77700	-6.78360	-.81590	2.18140	.12070	-1.91400	-.36650
.600	123.600	10.44150	-6.93290	-.55090	1.70960	.12890	-2.23480	-.31310
.300	127.640	9.49640	-6.91090	-1.04390	2.47960	.14210	-2.34390	-.28290
.600	119.510	11.81200	-6.82710	-.89820	2.10400	.12430	-1.91090	-.35940
GRADIENT	-.26882	-.22083	.01718	-.01770	.00117	-.09081	.01246	

RUN NO. 228/ 0 RN/L = 6.34 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.696	110.780	16.32190	-3.73490	-.54530	1.91220	.10980	-.40520	-.43320
.696	114.810	15.45230	-5.11770	-.55380	2.05910	.11310	-.95230	-.41970
.696	118.690	14.53210	-5.98690	-.64950	2.47990	.11080	-1.45760	-.40980
.696	122.960	13.50050	-6.31880	-.61080	2.62870	.10870	-1.91130	-.39820
.696	127.060	12.47620	-5.57650	-.56730	2.58580	.10320	-2.30200	-.37400
.696	118.830	14.49080	-5.93990	-.64690	2.45040	.10610	-1.42700	-.41190
GRADIENT	-.23690	-.11947	-.00245	.04701	-.00043	-.11671	.00344	

RUN NO. 229/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
1.192	110.590	19.84640	4.78630	-.61110	1.75910	.08060	-.62090	-.44280
1.192	114.650	18.84630	4.12960	-.62890	1.69050	.05910	-1.30590	-.42440
1.192	118.730	17.77020	3.27040	-.61050	1.60480	.05140	-1.74800	-.40170
1.192	122.810	16.51970	2.20430	-.58450	1.58310	.05430	-2.13830	-.38660
1.192	126.880	15.10690	.78540	-.58530	1.51840	.05480	-2.34660	-.34750
1.192	118.680	17.77680	3.11640	-.61830	1.65440	.05320	-1.72840	-.40730
GRADIENT	-.28027	-.24392	.00236	-.01447	-.00030	-.10525	.00881	

RUN NO. 171/ 0 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
1.944	110.360	18.95640	5.99510	-.18370	2.20250	.02340	-.36740	-.19840
1.944	114.670	17.74460	5.78070	-.22310	1.93290	.03390	-1.22210	-.20800
1.944	118.790	16.50800	5.34370	-.18970	2.06890	.03710	-1.61840	-.21490
1.944	122.890	15.25000	4.52730	-.21560	2.01080	.04670	-2.02510	-.21480
1.944	127.010	13.70980	4.04840	-.14840	2.13880	.03690	-2.40320	-.18910
1.944	118.630	16.27320	5.35530	-.13900	2.28020	.04280	-1.38480	-.20660
GRADIENT	-.31589	-.12510	.00191	-.00141	.00094	-.10677	.00051	

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F3G) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ.IN. XMRP = 8.0810 INCH
 LREF = .6000 INCH YMRP = .0000
 BREF = .6000 INCH ZMRP = .0000
 SCALE = .0045

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 133/ D RM/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
3.480	111.290	17.63680	7.91320	-.35570	.73560	.07470	-.58310	-.02140
3.480	115.360	16.58170	7.31570	-.37450	.65480	.07710	-1.01310	-.02990
3.480	119.400	15.42000	6.66770	-.38280	.61300	.07950	-1.45140	-.04010
3.480	123.480	14.13290	5.93940	-.36960	.59820	.07710	-1.89430	-.04360
3.480	127.520	12.78760	5.10890	-.35660	.53840	.07980	-2.34880	-.04060
3.480	119.390	15.46290	6.60720	-.36110	.70550	.07560	-1.44950	-.03800
	GRADIENT	-.29934	-.17212	.00008	-.01112	.00025	-.10874	-.00128

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79F3H) (22 JAN 75)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 184/ D RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.596	130.960	8.44880	1.01720	-2.35160	-2.79590	.13010	-2.14980	-.27810
.596	135.060	8.47410	-3.12710	-1.30710	2.71100	.14340	-2.22600	-.14150
.596	139.180	5.36960	-3.79940	-.20340	.54990	.11210	-2.35390	-.10250
.596	143.330	4.74410	-2.49070	.43150	-.93640	.08930	-2.52830	-.05100
.596	147.410	3.96350	-1.91470	.18890	-1.06680	.07620	-2.54030	.00180
.596	159.170	5.33930	-3.71300	-.09240	.21320	.11950	-2.34370	-.10650
	GRADIENT	-.25982	-.12664	.16565	-.00501	-.00394	-.02828	.01579

RUN NO. 183/ D RN/L = 6.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.897	129.240	12.97130	-2.61470	-.78300	2.14970	.11630	-2.24250	-.38240
.897	133.670	11.13380	-1.49650	-.71820	1.78330	.10390	-2.60530	-.32850
.897	138.150	8.82740	-1.20230	-.52120	1.17420	.09920	-2.83620	-.23350
.897	142.470	7.06860	-1.82390	-.62300	1.40660	.10000	-2.38440	-.16540
.897	146.670	5.42040	-4.02190	-.05540	.16700	.08420	-2.84670	-.04570
.897	158.130	8.81210	-1.31960	-.53750	1.19020	.09800	-2.79070	-.22830
	GRADIENT	-.43931	-.06878	.03532	-.09923	-.00156	-.03665	.01913

RUN NO. 182/ D RN/L = 6.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.191	128.140	15.28450	-1.33240	-.68810	1.38510	.08230	-2.45520	-.34530
1.191	132.580	13.80100	-.75380	-.66390	1.16480	.06330	-2.92250	-.30050
1.191	137.000	11.97490	-.89820	-.62460	1.08930	.06660	-3.28120	-.28100
1.191	141.450	10.04340	-1.20180	-.61690	.83030	.06540	-3.54870	-.28760
1.191	145.850	8.11780	-2.35690	-.65820	.99380	.06590	-3.58510	-.25730
1.191	158.990	11.97910	-.68280	-.64150	1.10880	.06370	-3.26720	-.29850
	GRADIENT	-.40738	-.05543	.00291	-.02523	.00021	-.06559	.00426

RUN NO. 174/ D RN/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.967	128.390	14.18790	4.32210	-.93390	.59210	.05540	-2.68130	-.21330
1.967	132.820	12.65780	4.09990	-.51150	.45630	.05010	-3.04850	-.21410
1.967	137.190	11.12510	3.40380	-.46380	.41010	.05610	-3.38330	-.20090
1.967	141.590	9.60030	2.72190	-.42400	.36260	.04870	-3.59660	-.18470
1.967	145.910	8.18180	2.14810	-.42290	.37760	.04480	-3.69330	-.16870
1.967	157.130	11.21870	3.26810	-.47000	.37890	.05230	-3.37020	-.20470
	GRADIENT	-.34308	-.13068	.00767	-.01217	-.00086	-.08017	.00321

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F3H) (22 JAN 73)

REFERENCE DATA

3REF = .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 129/ 0 RN/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLMM	CYM	CYMM	CBL	CA	CPB1
3.480	129.930	12.17960	4.54400	.02140	.69900	-.08630	-2.60530	-.02910
3.480	134.160	10.77460	4.00800	.00310	.57010	-.06680	-2.99950	-.03720
3.480	138.380	9.39320	3.44740	-.00400	.45230	-.06370	-3.33530	-.04460
3.480	142.610	8.00410	2.99850	-.01960	.33730	-.04490	-3.59030	-.04950
3.480	146.820	6.65770	2.49570	-.03530	.28200	-.03730	-3.70500	-.04820
3.480	150.370	5.48590	3.50660	-.00010	.45340	-.05940	-3.33940	-.04520
GRADIENT		-.32713	-.12091	-.00322	-.02479	.00284	-.06607	-.00120

MSFC 554 (3A1F) PRR/GRD (NO GRIT)

(R79F51) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHZ = 45.000
 PWSTK = 1.100 AFTSTK = 1.100

RUN NO. 191/ D RN/L = 5.00 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
.599	152.600	3.41550	-1.96500	.04680	-.23130	.06580	-2.59220	-.02270
.599	156.700	2.68650	-1.91510	.09490	-.03470	.07260	-2.50440	.01000
.599	160.810	1.93270	-1.89760	.04790	.32220	.06420	-2.41980	.02370
.599	164.910	1.29260	-1.59570	.01990	.38960	.04950	-2.30110	.05180
.599	169.000	.69770	-.69850	-.00840	.25690	.04510	-2.13200	.07420
.599	160.790	1.93330	-1.90840	.07090	.34530	.06140	-2.41610	.03070
GRADIENT		-.16653	.05989	-.00443	.03426	-.00255	.02740	.00574

RUN NO. 192/ D RN/L = 6.32 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
.893	152.130	4.22020	-2.40250	.15380	-.27140	.07310	-2.65550	-.16190
.893	156.420	3.06790	-1.33820	-.14990	.40050	.05060	-2.84510	-.14160
.893	160.610	2.29550	-.78640	-.03930	.16750	.03710	-2.78380	-.12570
.893	164.790	1.61420	-.21420	-.04070	.19020	.02420	-2.69700	-.10560
.893	168.930	1.00140	.31340	-.05450	.13470	.01310	-2.55310	-.07540
.893	160.590	2.30100	-.81200	.00900	.25630	.03440	-2.78910	-.12650
GRADIENT		-.18617	.15635	-.00740	.01454	-.00649	.01790	.00498

RUN NO. 193/ D RN/L = 7.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
1.193	151.360	6.53930	-2.53080	-.65190	2.00040	.05750	-3.66080	-.26200
1.193	155.720	4.99360	-2.55850	-1.04700	4.39530	.06850	-3.66520	-.22680
1.193	160.110	3.41190	-2.53990	-1.24010	.64430	.03850	-3.86510	-.19150
1.193	164.510	2.00100	-1.93580	-.25530	.13240	.02760	-3.44190	-.13980
1.193	168.770	1.13900	-.96910	-.05120	.36780	.01740	-3.33020	-.10760
1.193	160.100	3.37090	-2.59250	-1.18390	.61440	.03610	-3.54110	-.16600
GRADIENT		-.31644	.08567	.05462	-.17307	-.00273	.02065	.00908

RUN NO. 122/ D RN/L = 7.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
3.480	152.230	5.25680	1.74050	-.17450	.22030	.01990	-3.72300	-.05900
3.480	156.440	3.94820	1.22410	-.14880	.18410	.01760	-3.70980	-.05260
3.480	160.610	2.77630	.43540	-.10650	.13630	.01490	-3.69610	-.05030
3.480	164.790	1.81080	-.10320	-.06440	.17510	.00140	-3.67800	-.04910
3.480	168.880	1.02280	-.49290	.00270	.30360	.00070	-3.65130	-.05390
3.480	160.590	2.67140	.47370	-.11360	.16260	.00820	-3.69970	-.04820
GRADIENT		-.25489	-.13728	.01093	.00378	-.00129	.00420	.00016

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MSFC 554 (SAIF) PRR/BRD (NO CRIT)

(R79F3J) (22 JAN 73)

REFERENCE DATA

SHEF = .5030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHV = 45.000
 FWDSTK = 1.100 AFISTK = 1.100

RUN NO. 114/ D RN/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.959	171.380	.60120	-1.10260	-.05970	.35650	.00650	-3.65830	-.03080
1.959	175.500	.27190	-.60550	-.03110	.21730	.00040	-3.50150	-.01620
1.959	179.650	-.03950	.28910	-.04060	.16240	-.00180	-3.48680	-.02570
1.959	183.770	-.34530	.94000	.05880	.10180	.00100	-3.52080	-.02280
1.959	187.920	-.77720	1.44240	.38250	.49940	.00250	-3.62670	-.05680
1.959	179.640	-.02100	.23920	-.04030	.17950	-.00320	-3.45400	-.02530
GRADIENT		-.08160	.16747	.02557	.00414	-.00018	.00105	-.00103

RUN NO. 118/ D RN/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
3.480	171.530	.37700	-.44830	-.05100	.15140	-.00200	-3.59890	-.04770
3.480	175.580	.14860	-.23940	-.04100	.13690	.00030	-3.48600	-.03680
3.480	179.630	-.04090	.25870	-.03190	.10030	-.00160	-3.44820	-.03730
3.490	183.690	-.24420	.97480	.01410	.11160	.00050	-3.51810	-.04140
3.480	187.750	-.59330	.31650	.13370	.27070	-.00490	-3.60840	-.05700
3.480	179.630	-.02560	.21840	-.03550	.10850	-.00400	-3.45520	-.03770
GRADIENT		-.05755	.07289	.01047	.00586	-.00014	-.00127	-.00057

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F4E) (22 JAN 73)

REFERENCE DATA

SREF = .9030 34.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 67.500
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 158/ D RN/L = 6.41 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMK	CYM	CYMH	CBL	CA	CPB1
.897	72.700	17.12250	20.36790	.31620	-.42270	.12530	.55010	-.41290
.897	76.600	17.38430	17.81960	.35050	-.69410	.11030	1.05360	-.42980
.897	80.500	17.88710	15.11700	.28940	-.75110	.11720	1.19520	-.48280
.897	84.400	18.20660	12.30420	.25000	-.80900	.11250	1.29030	-.53500
.897	88.310	18.49990	9.59070	.25280	-.91640	.11710	1.26860	-.57790
.897	90.520	17.86660	15.07810	.29700	-.71770	.11370	1.20470	-.47940
GRADIENT		.09168	-.69374	-.00562	-.02625	-.00036	.04290	-.01115

RUN NO. 143/ D RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMK	CYM	CYMH	CBL	CA	CPB1
3.480	72.380	19.78850	13.11140	.15440	-.37930	.10610	1.48520	-.00140
3.480	75.380	20.36730	13.48430	.14920	-.44620	.11200	1.37060	.00780
3.480	80.410	20.81250	13.56990	.14220	-.43990	.11120	1.23410	.01980
3.480	84.410	21.05250	13.37890	.10000	-.36230	.11110	1.07440	.02100
3.480	88.390	21.08030	12.95780	.04070	-.23400	.10230	.89800	.02430
3.480	90.410	20.81550	13.60250	.12410	-.39260	.11330	1.22000	.01970
GRADIENT		.08278	-.01022	-.00690	.00934	-.00021	-.03727	.00162

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MSFC TWT 554

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MSFC 554 (SA1F) PRR/SRB (NO GRIT)

(R79F5A) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0010 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 53/ D RN/L = 5.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.595	-8.610	-.78810	-.52570	-.03060	-.26980	.00540	1.40330	-.25680
.595	-4.590	-.44360	.04650	.02820	-.08510	.00270	1.37450	-.23100
.595	-.540	-.03480	.02920	.02930	.02320	.01550	1.34330	-.21590
.595	3.480	.41830	-.20760	-.03860	.16740	-.00130	1.37790	-.22290
.595	7.520	.76260	.26190	-.11530	.31380	-.01570	1.39320	-.26430
.595	-.540	.00030	-.00680	.02910	-.01100	.00000	1.32840	-.19890
GRADIENT		.10680	-.03145	-.00827	.03128	-.00049	.00041	.00101

RUN NO. 54/ D RN/L = 6.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.900	-8.680	-.95450	-.37180	.01780	-.14210	.00640	1.80890	-.28930
.900	-4.620	-.52580	.16080	.02010	-.05720	.00550	1.80570	-.27260
.900	-.540	-.07740	.05980	.04500	-.00140	.00430	1.76000	-.26250
.900	3.490	.41800	-.37350	-.00950	.21030	-.00390	1.80150	-.20220
.900	7.870	.83360	.05790	-.09430	.37850	-.00790	1.85070	-.32500
.900	-.540	-.06870	.02660	.03810	.00420	.00150	1.74630	-.25790
GRADIENT		.11636	-.06580	-.00363	.03294	-.00116	-.00054	-.00118

RUN NO. 55/ D RN/L = 6.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
1.197	-8.740	-.92390	-.80620	-.12130	.06300	.01320	2.42620	-.28820
1.197	-4.630	-.55100	.23030	-.05960	.31590	.00430	2.28350	-.26910
1.197	-.550	.00590	-.30380	-.05530	.37260	.00330	2.14950	-.23080
1.197	3.490	.59740	-1.01140	-.08620	.58280	-.01290	2.32690	-.29360
1.197	7.820	.98930	.09280	-.17040	.60830	-.00690	2.45550	-.30960
1.197	-.550	.02850	-.28780	-.04740	.35390	.00280	2.14780	-.23440
GRADIENT		.14142	-.15288	-.00327	.03284	-.00212	.00328	-.00300

RUN NO. 111/ D RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
1.965	-8.820	-1.10830	-1.22890	-.13330	.04680	.00480	1.98840	-.18880
1.965	-4.670	-.60130	-.09420	-.02040	.07910	.00490	1.92430	-.18480
1.965	-.540	-.05590	.03260	.01530	.05070	.00090	1.77380	-.18620
1.965	3.520	.51280	-.05400	-.02110	.28630	-.00270	1.89590	-.19880
1.965	7.710	1.04900	.93510	-.10810	.39090	.00190	1.98150	-.19910
1.965	-.540	-.03740	.01980	-.01330	.04890	.00670	1.78040	-.18440
GRADIENT		.13602	.00008	-.00008	.02521	-.00093	-.00396	-.00171

DATE 02 MAR 73

M3FC TWT 554

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M3FC 554 (8A1F) PRR/SRB (NO GRIT)

(R79F5A) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 8.0810 INCH
 LREF = .6000 INCH YMRP = .0000
 BREF = .6000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 91/ 0 RN/L = 7.11 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
3.480	-8.760	-1.35500	-1.22700	.10410	-.09370	.02190	1.26730	-.09310
3.480	-4.660	-.61080	-.58560	.04120	.07970	.01750	1.28620	-.09140
3.480	-.550	-.08170	-.00610	.07400	-.14390	.01850	1.30590	-.08930
3.480	3.520	.48420	.16720	.02790	.08120	.01260	1.31730	-.08550
3.480	7.650	1.15930	1.11580	.11310	.05640	.01120	1.28100	-.09300
3.480	-.540	-.05650	-.00090	.07770	-.13720	.01890	1.30520	-.09110
	GRADIENT	.13459	.06211	-.0016	.00009	-.00060	.00380	-.00001

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MSTC TWT 554

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MSTC 554 (SAIF) PRR/SRB (NO CRIT)

(R79F5B) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 78/ 0 RN/L = 5.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
.899	12.020	1.17260	.96680	-.21930	.48600	-.00350	1.38950	-.30920
.999	16.070	1.75460	1.73120	-.36430	.22590	-.00170	1.36190	-.35090
.999	20.170	2.52440	2.50510	-.20830	-.70550	-.00990	1.31770	-.37550
.999	24.260	3.29830	3.43620	.19370	-1.74690	-.00600	1.29020	-.42470
.999	28.400	4.23750	4.90730	.58480	-.90890	-.00270	1.17260	-.43910
.999	20.170	2.51540	2.51880	-.21350	-.68200	-.01140	1.31430	-.37720
GRADIENT		.18745	.23422	.05301	-.11612	-.00006	-.01236	-.00814

RUN NO. 79/ 0 RN/L = 6.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
.894	12.120	1.31070	.82870	-.04740	.62900	-.00060	1.76330	-.35920
.894	16.220	1.92220	1.78570	.01760	.59440	-.00590	1.70790	-.39790
.894	20.410	2.73950	3.02400	.07820	-.14340	-.00240	1.61430	-.40420
.894	24.640	3.78320	4.78350	.23880	-1.13200	.00970	1.51770	-.41770
.894	28.940	5.12500	7.35020	.46650	-.73690	.01650	1.41100	-.43970
.894	20.430	2.78960	3.10970	.09110	-.10050	-.00230	1.63720	-.39570
GRADIENT		.22588	.38261	.02977	-.10590	.00119	-.02130	-.00429

RUN NO. 80/ 0 RN/L = 6.81 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
1.201	12.250	1.54620	1.40790	-.41000	.94110	-.02220	2.43260	-.31420
1.201	16.450	2.32480	2.99530	-.61870	.60970	-.02610	2.32100	-.30250
1.201	20.790	3.43740	5.16590	-.45700	-.78510	-.02420	2.17690	-.34750
1.201	25.210	4.78860	8.35700	.23610	-1.53240	-.01030	2.12980	-.41130
1.201	29.710	7.03250	10.52090	.41510	1.24280	.00700	1.99780	-.41660
1.201	20.810	3.50860	5.30010	-.45410	-.77970	-.02600	2.17470	-.34100
GRADIENT		.30840	.53790	.05778	-.03334	.00172	-.02425	-.00720

RUN NO. 107/ 0 RN/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
1.956	12.400	1.65290	2.28860	-.32070	.90840	-.00390	2.00100	-.19430
1.956	16.750	3.06580	4.31950	-.25750	.58750	-.00960	1.96420	-.19920
1.956	21.180	4.63830	6.00550	-.12330	.20030	-.00310	2.01280	-.20930
1.956	25.590	6.38710	6.68240	.18020	-.88190	.00670	1.98810	-.22780
1.956	29.910	8.17670	7.18740	.29680	-.86750	.01180	1.96740	-.23750
1.956	21.180	4.71210	5.70810	-.12500	.27960	-.00400	1.99430	-.21020
GRADIENT		.36441	.27759	.03817	-.11460	.00109	-.00098	-.00262

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MSFC 554 (SAIF) FMN/SRB (NO GRIT)

(R79F53) (22 JAN 73)

REFERENCE DATA

SREF = .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 94/ 0 RN/L = 7.13 GRADIENT INTERVAL = -5.00, 5.00

MAC	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
3.480	12.250	2.23110	1.49870	.09330	.02170	.00830	1.31490	-.09460
3.480	16.370	3.38060	1.45470	.05640	-.04620	-.00190	1.39780	-.09600
3.480	20.540	4.67630	1.32760	.08530	-.19520	-.00320	1.51100	-.09550
3.480	24.720	6.09010	1.48040	.08930	-.15630	.00880	1.65580	-.09100
3.480	28.910	7.61140	1.56980	.09810	-.36120	.00490	1.79890	-.08980
3.480	20.550	4.75450	1.39380	.09250	-.18780	.00080	1.51130	-.09280
	GRADIENT	.32331	.00334	.00103	-.02102	.00010	.02942	.00035

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MBFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F5C) (22 JAN 73)

REFERENCE DATA

SREF = .3030 SQ.IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 71/ D RN/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.598	32.700	5.32760	6.48640	.77780	1.20290	.00110	1.02220	-.39090
.598	36.800	6.57390	7.78190	.85520	1.97870	-.00680	.83930	-.43820
.598	40.910	7.37420	8.42220	.57760	-.84540	.00310	.68820	-.46120
.598	45.080	9.29000	8.38850	.34110	-1.63060	.00140	.54480	-.47580
.598	49.300	12.08430	9.18480	.87340	-1.39660	.00340	.34060	-.47280
.598	40.820	7.38450	8.45540	.56720	-.72710	-.00670	.69770	-.46570
GRADIENT		.39314	.15423	-.00711	-.21201	.00031	-.03999	-.00412

RUN NO. 70/ D RN/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
.892	33.450	6.55900	9.68010	.74557	-1.20460	.01320	1.13780	-.40550
.892	37.780	8.36580	12.27410	.23030	-1.10680	.02330	.97390	-.44750
.892	42.220	10.54260	15.18610	.48030	-2.62410	.02810	.81630	-.48740
.892	46.720	12.74430	19.24370	.77380	-2.40610	.04220	.70740	-.50110
.892	51.120	14.41130	22.62080	.71310	-2.53090	.04930	.52650	-.46390
.892	42.200	10.53220	14.97630	.43950	-2.61090	.02130	.80120	-.48260
GRADIENT		.45319	.74165	.02949	-.07993	.00206	-.03356	-.00363

RUN NO. 69/ D RN/L = 6.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.199	34.470	9.86760	12.18410	.34780	2.50650	.00760	1.59070	-.38070
1.199	39.940	12.00230	14.71310	.43800	.67040	.02630	1.53080	-.43130
1.199	43.400	14.20540	13.85990	.51040	-1.37630	.04880	1.40240	-.43240
1.199	47.810	15.68070	18.52130	.25470	-1.66040	.06130	1.34030	-.45900
1.199	52.190	17.33240	20.38330	.22870	-2.07560	.07550	1.18540	-.44890
1.199	43.420	14.26260	15.89450	.50100	-1.43640	.04840	1.59910	-.43310
GRADIENT		.42019	.45366	-.00843	-.25998	.00386	-.02211	-.00371

RUN NO. 104/ D RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMM	CBL	CA	CPB1
1.959	34.430	10.08010	7.24160	.16790	-.54530	.00820	1.92080	-.23280
1.959	38.930	11.64010	8.41620	.14420	-.96400	.01710	1.89070	-.23710
1.959	43.240	13.85400	9.34720	.15560	-1.42920	.02140	1.95060	-.23740
1.959	47.660	15.58590	10.60940	.15280	-1.61390	.03110	1.92600	-.23190
1.959	52.040	16.95480	11.86250	.15850	-1.78450	.04480	1.84480	-.22680
1.959	43.190	13.85840	9.11710	.15310	-1.74780	.02430	1.94450	-.23430
GRADIENT		.39283	.28966	-.00112	-.07055	.00198	-.00402	.00036

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MSFC 554 (3A10) PRR/SRB (NO CRIT)

(RT9F5C) (22 JAN 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BRCP = .8000 INCH ZMRP = .0000
 SCALE = .0049

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 88/ 0 RN/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPM	CLMM	CYM	CYMX	CBL	CA	CP61
3.480	33.310	9.23180	1.96610	.06810	-.61400	.01600	1.05310	-.08770
3.480	37.500	10.77710	2.30130	.09090	-.78890	.01650	2.14690	-.06640
3.480	41.780	12.11930	4.30020	.10830	-.91980	.01430	2.14760	-.08460
3.480	46.030	13.40530	6.42770	.14380	-1.04620	.02760	2.06240	-.08020
3.480	50.090	14.65610	8.52240	.16100	-1.19280	.03540	1.94800	-.07370
3.480	41.790	12.20960	4.32010	.10420	-.92530	.01790	2.15260	-.08100
GRADIENT		.31714	.40619	.00362	-.03329	.00118	-.00226	.00081

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NSFC TWT 554

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NSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F50) (22 JAN 73)

REFERENCE DATA

WREF = .5030 SQ. IN. XMRP = 8.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 209/ 0 RN/L = 5.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.602	92.280	12.07290	13.82130	-.05020	-2.22760	-.00080	.31180	-.53360
.602	96.390	12.80430	17.72290	-.34420	-3.63770	.01500	.17440	-.36770
.602	90.450	13.78630	16.96300	-.49660	-5.48910	.02560	.01610	-.36870
.602	84.510	14.61680	20.03330	-.31350	-6.57540	.02520	-.07670	-.40690
.602	88.570	15.23670	21.24990	.50640	-6.66620	.02680	-.21780	-.42490
.602	80.470	13.73860	18.91630	-.51200	-5.40100	.03430	.01350	-.35890
GRADIENT		.19755	.42222	.02795	-.29081	.00171	-.03220	.00441

RUN NO. 210/ 0 RN/L = 6.37 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.693	53.100	14.65720	23.13670	.14350	-2.91480	.05970	.55480	-.28610
.693	57.190	16.27030	24.52290	.18540	-3.25720	.06070	.50060	-.37250
.693	61.320	17.12780	26.79540	.26500	-2.60170	.04680	.37620	-.40670
.693	65.540	17.09550	26.99330	.05800	-3.40250	.03810	.24100	-.39480
.693	69.270	17.41700	23.97980	.09200	-3.12400	.03480	.50520	-.43130
.693	61.310	16.94770	26.50490	.30080	-2.46410	.04660	.36060	-.41290
GRADIENT		.15741	.10302	-.00309	-.01361	-.00179	-.00902	-.00775

RUN NO. 211/ 0 RN/L = 6.85 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.109	55.390	19.95330	20.31930	.15970	-2.19310	.08440	1.30720	-.25520
1.109	57.410	19.41580	20.71510	.20230	-2.05370	.07040	1.28090	-.31990
1.109	61.490	19.54420	21.20680	.18090	-2.30170	.07440	1.34010	-.34470
1.109	65.540	20.49610	21.28040	.17980	-2.90000	.07860	1.43010	-.39280
1.109	69.540	21.07950	20.60530	.08030	-2.80600	.07100	1.53060	-.45280
1.109	61.520	19.56310	21.48790	.17270	-2.30960	.07500	1.32880	-.39710
GRADIENT		.25323	.02796	-.00544	-.08256	.00093	.01469	-.01195

RUN NO. 189/ 0 RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.951	55.180	15.62410	14.67620	-.59980	.62310	.09320	1.70260	-.16060
1.951	57.280	16.75310	15.38440	-.68010	.54040	.11040	1.70320	-.19800
1.951	61.380	17.99110	16.77420	-.72100	.36270	.12330	1.69940	-.22010
1.951	65.470	18.89400	17.36330	-.73630	.21770	.13170	1.59480	-.22340
1.951	69.570	19.81100	18.63190	-.78040	.22030	.13410	1.43590	-.21230
1.951	61.540	17.77800	16.34930	-.74370	.48240	.15070	1.80820	-.21900
GRADIENT		.26703	.24637	-.01010	-.02755	.00281	-.01966	-.00314

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

079F5D) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWCSTK = 1.100 AFTSTK = 1.100

RUN NO. 149/ 1 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPBI
3.480	52.450	15.05330	3.94637	.16990	-1.24880	.02650	2.03420	-.06540
3.480	56.530	16.20300	10.72680	.17680	-1.42110	.03650	1.91740	-.06360
3.460	60.650	17.28580	12.09960	.17450	-1.57900	.03790	1.78760	-.05960
3.480	64.730	18.29280	13.16900	.19940	-1.69120	.05570	1.65580	-.05160
3.480	68.780	19.10280	13.85320	.21500	-1.79850	.05960	1.53000	-.05020
3.480	60.660	17.24970	12.03800	.17460	-1.58960	.03780	1.78350	-.05930
GRADIENT		.25331	.30010	.00276	-.03333	.00204	-.03108	.00104

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MSFC TWT 534

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MSFC 954 (S41F) PRN/SRB (NO GRIT)

(R79F5E) (22 JAN 73)

REFERENCE DATA

SREF = .5050 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 245/ 0 RV/L = 5.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.599	72.270	14.91880	20.78000	1.08510	-7.11050	.03910	.62570	-.38620
.599	76.230	15.04140	19.21100	1.68510	-5.08070	.04840	.96680	-.40730
.599	80.140	15.07710	14.78210	.78040	-4.22170	.02000	1.40770	-.45300
.599	84.100	15.40020	12.27880	.29590	-4.01720	.01520	1.35750	-.51400
.599	88.080	15.75070	10.12670	.15250	-3.62690	.00810	1.14160	-.56230
.599	90.180	15.11690	15.00790	.84210	-5.13940	.03950	1.38880	-.47460
GRADIENT	.05027	-.71554	-.08243	.19335	-.00241	.03547	-.01164	

RUN NO. 247/ 0 RV/L = 4.58 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.896	72.740	17.53870	20.85950	.01210	-2.90630	.03190	.84320	-.41020
.896	76.640	17.90640	18.71310	.06610	-2.64320	.03550	1.21840	-.42120
.896	80.560	18.28270	16.37540	.08030	-2.88600	.03180	1.20500	-.43980
.896	84.470	18.73230	13.64730	.11330	-2.93700	.03590	1.36370	-.49440
.896	88.390	18.99200	11.32770	.11700	-2.75870	.03550	1.26760	-.52790
.896	90.570	18.16250	16.30890	.08550	-2.68260	.03440	1.21550	-.44100
GRADIENT	.09533	-.61685	.00657	.00325	.00020	.02547	-.00789	

RUN NO. 142/ 1 RV/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
3.480	72.420	19.72240	14.60260	.25000	-1.77620	.04950	1.43880	-.01640
3.480	76.420	20.35530	14.77730	.26790	-1.83240	.05350	1.30950	-.01080
3.480	80.480	20.85870	14.87680	.26790	-1.87960	.05810	1.15480	-.00680
3.480	84.480	21.12150	14.65050	.24400	-1.89560	.04030	.99270	-.01130
3.480	88.480	21.24130	14.13580	.25690	-1.71340	.04100	.81010	-.00430
3.480	90.480	20.82690	14.67550	.26400	-1.89510	.05030	1.15170	-.00610
GRADIENT	.09488	-.02633	-.00128	.00501	-.00078	-.03921	.00039	

MSFC 554 (SAIF) PRP/BRB (NO CRIT)

(RTDP3F) (22 JAN 73)

REFERENCE DATA

BREF = .5030 90.1N. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 99.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 245/ 0 RML = 5.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CSL	CA	CPB1
.500	91.880	15.57180	6.08430	-.31910	-3.44720	-.01160	1.14750	-.55700
.508	95.850	15.32750	4.48130	-.25680	-3.20970	-.00770	.73410	-.50110
.596	99.630	15.19470	2.74020	-.46860	-2.77830	-.00860	.25140	-.48310
.598	103.820	14.90750	1.38550	-.62990	-2.48640	-.01630	-.29890	-.49950
.599	107.790	14.65610	-.33850	-.75850	-2.23080	-.02430	-.69720	-.53220
.598	99.790	15.20460	2.74230	-.45670	-2.69330	-.01660	.25730	-.49140
GRADIENT		-.03861	-.44576	-.03148	.07977	-.00068	-.11868	.00128

RUN NO. 244/ 0 RML = 6.54 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CSL	CA	CPB1
.896	91.470	16.74240	8.46890	-.25530	-2.84120	-.03720	1.42020	-.52770
.896	95.430	16.38890	6.33310	-.26040	-2.71740	-.03870	1.13780	-.51140
.896	99.390	16.08400	4.41140	-.24730	-2.79660	-.03890	.77440	-.47760
.896	103.320	15.82400	1.87220	-.21990	-2.99480	-.04950	.33200	-.46410
.896	107.250	15.58050	-.01080	-.15510	-3.01800	-.04160	-.18990	-.47680
.896	99.350	16.10120	4.40730	-.26210	-2.80280	-.04190	.79910	-.49520
GRADIENT		-.07318	-.54288	.00810	-.01803	-.00080	-.10088	.00328

RUN NO. 137/ 0 RML = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYN	CYNN	CSL	CA	CPB1
3.480	91.530	20.95220	11.12910	.08700	-.80040	-.02080	.60510	.01340
3.480	95.540	20.77580	10.60820	.00230	-1.05910	-.03070	.42850	.01000
3.480	99.590	20.32730	10.23200	-.01790	-1.17950	-.02820	.35790	.00330
3.480	103.590	19.65330	9.74910	-.04610	-1.30070	-.02140	.05010	-.00400
3.480	107.600	18.84800	9.24480	-.07910	-1.34480	-.02360	-.29920	-.01070
3.480	99.590	20.34070	10.24710	-.00720	-1.15100	-.01	.35440	.00370
GRADIENT		-.12273	-.11814	-.00847	-.03308	.00009	-.07413	-.00553

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MSFC 954 (BA1F) PRR/SRB (NO CRIT)

(R79F5G) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 208/ 0 RN/L = 5.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.598	111.490	14.40080	-2.32040	-.57930	-3.43930	-.01690	-1.03240	-.45050
.598	115.480	13.97300	-4.24140	-.53550	-4.13090	-.01830	-1.47540	-.42610
.598	119.480	13.18950	-5.05420	-.04380	-4.72580	-.02050	-1.94260	-.38710
.598	123.570	11.80930	-5.71810	.53830	-5.09540	-.01850	-2.24370	-.37240
.598	127.620	10.93500	-5.43800	1.03000	-6.08310	-.04300	-2.36840	-.39290
.598	119.470	13.18180	-5.97450	.07360	-4.70490	-.02270	-1.98160	-.39180
GRADIENT	-.22478	-.19007	.10846	-.15493	-.00130	-.08514	.00417	

RUN NO. 207/ 0 RN/L = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.898	110.750	17.27520	-2.57370	-.15150	-2.69720	-.03050	-.52870	-.49900
.898	114.790	16.45520	-4.21400	-.35980	-2.48550	-.03580	-1.03110	-.44320
.898	118.810	15.51820	-5.45390	-.37870	-2.72220	-.03580	-1.47650	-.42390
.898	122.820	14.48620	-5.62830	-.26870	-2.04800	-.03930	-1.87390	-.42250
.898	127.020	13.05090	-5.33210	-.21230	-1.89160	-.04140	-2.27610	-.39770
.898	118.790	15.45130	-3.38830	-.40940	-2.71910	-.03110	-1.45880	-.43650
GRADIENT	-.25828	-.16369	-.00114	.05061	-.00062	-.10662	.00352	

RUN NO. 206/ 0 RN/L = 6.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.198	110.520	21.00270	5.95890	-.08910	-2.89940	-.05120	-.84610	-.52580
1.198	114.580	20.08730	5.09730	-.08630	-2.68200	-.03870	-1.33040	-.47080
1.198	118.630	18.86680	3.91400	-.09870	-2.06710	-.04650	-1.79610	-.44290
1.198	122.730	17.68880	2.60370	-.08420	-2.41770	-.04470	-2.19290	-.42310
1.198	126.800	16.28740	1.70200	-.06680	-2.00570	-.04440	-2.59410	-.38730
1.198	118.630	19.91920	3.83600	-.09580	-2.68290	-.04620	-1.77730	-.45960
GRADIENT	-.29117	-.26349	.00188	.04993	.00019	-.10706	.00819	

RUN NO. 170/ 0 RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.953	110.520	18.77820	4.82440	.75330	1.12140	-.09830	-.72570	-.20900
1.953	114.630	17.79160	4.89080	.74060	1.19530	-.10780	-1.27830	-.21570
1.953	118.750	16.49490	4.80080	.70440	1.25010	-.09730	-1.51970	-.21820
1.953	122.860	15.38790	4.11700	.67210	1.21820	-.08380	-1.80740	-.21580
1.953	126.860	13.80910	3.50260	.61290	1.31350	-.08940	-2.19470	-.19880
1.953	118.770	18.35700	4.30650	.74030	1.43820	-.09810	-1.41130	-.21560
GRADIENT	-.29979	-.08790	-.00848	.00986	.00189	-.08867	.00049	

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MSFC 554 (SA1P) PRR/GRB (NO GRIT)

(RT9F56) (22 JAN 73)

REFERENCE DATA

SNRP = .5050 SQ.IN. XGRP = 6.0010 INCH
 LREF = .0000 INCH YGRP = .0000
 SREF = .0000 INCH ZGRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 132/ 1 RM/L = 7.11 GRADIT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYMH	CBL	CA	CPB1
3.480	111.270	10.86310	8.75420	-.14250	-1.71620	-.03390	-.58480	-.04160
3.480	115.330	10.86830	8.11020	-.14090	-1.68190	-.02910	-1.00300	-.04520
3.480	119.410	15.78890	7.47800	-.12860	-1.47850	-.02690	-1.43990	-.05090
3.480	123.510	14.47870	6.71380	-.13170	-1.36240	-.03770	-1.90170	-.06110
3.480	127.550	13.13140	5.84300	-.12040	-1.22580	-.01670	-2.35670	-.06580
3.480	119.590	15.74870	7.48250	-.12880	-1.48780	-.01540	-1.42130	-.05770
	GRADIENT	-.30332	-.17822	.00130	.03833	.00063	-.10900	-.00158

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H3FC 554 (SAIF) PPR/SRB (NO CRIT)

(R79F5H) (22 JAN 73)

REFERENCE DATA

SREF = .5030 82.1N. YMRP = 6.0810 INCH
 LREF = .8000 INCH FMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 179/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.598	130.470	12.22830	-3.2510	1.45920	-7.79230	-.02380	-2.26560	-.36220
.598	134.810	8.55940	-3.08610	1.15650	-9.96210	-.05210	-2.34800	-.25110
.598	138.910	7.90170	-3.25040	1.32560	.00000	-.05420	-2.58400	-.21760
.598	143.060	7.02820	-2.03800	1.36720	-7.49080	-.04800	-2.69180	-.09870
.598	147.240	5.59470	-1.39040	.93740	-5.97430	-.00790	-2.60820	-.04140
.598	158.870	7.91650	-3.19650	1.32970	.00000	-.05620	-2.57110	-.21390
GRADIENT		-.35585	-.02779	-.01660	.14410	.00084	-.02460	.01901

RUN NO. 180/ 0 RN/L = 6.29 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.697	129.080	13.48010	-3.82000	-.39820	-2.91880	-.02560	-2.21730	-.22630
.697	133.590	11.35140	-2.44690	-.41770	-2.89700	-.02690	-2.54670	-.10540
.697	137.980	9.56880	-1.52090	-.37720	-3.33230	-.01330	-2.81620	-.17050
.697	142.220	8.51360	-1.62150	-.05770	-3.18910	-.02550	-2.95970	-.12630
.697	146.530	6.87100	-1.45090	.34390	-3.21810	-.02190	-2.97680	-.07610
.697	157.830	9.56830	-1.69920	-.23630	-3.25850	-.01730	-2.78760	-.17330
GRADIENT		-.36835	-.12899	.04215	-.02060	.00019	-.04455	.00847

RUN NO. 181/ 0 RN/L = 6.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.194	128.080	15.74420	-1.8890	-.18310	-2.05850	-.03330	-2.45400	-.17800
1.194	132.430	14.34360	-.67960	-.20260	-1.72650	-.03560	-2.92680	-.30010
1.194	136.870	12.62540	-.40290	-.22920	-1.50840	-.03760	-3.30090	-.27700
1.194	141.320	10.73480	-.72880	-.30040	-1.40350	-.02110	-3.57170	-.29770
1.194	145.720	8.73580	-1.80220	-.23500	-1.01120	-.01140	-3.63020	-.27360
1.194	155.890	12.56130	-.77840	-.23490	-1.45090	-.03460	-3.26060	-.27330
GRADIENT		-.38875	-.02898	-.00547	.05474	.00141	-.06777	-.00426

RUN NO. 175/ 0 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.962	128.290	14.74910	5.20820	-.19010	-1.60920	-.03820	-2.63500	-.20980
1.962	132.710	13.19480	4.81270	-.16010	-1.65280	-.02470	-3.03780	-.22870
1.962	137.100	11.90470	4.09890	-.11480	-1.38350	-.01730	-3.37720	-.22840
1.962	141.540	9.87150	3.30760	-.12250	-1.04780	-.01060	-3.61150	-.18940
1.962	145.850	8.73160	1.97950	-.13280	-.70160	-.00930	-3.68080	-.16570
1.962	157.030	11.65830	3.61090	-.11280	-1.36020	-.01660	-3.56770	-.22890
GRADIENT		-.36937	-.18103	.00209	.08416	.00167	-.06067	.00290

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F5H) (22 JAN 73)

REFERENCE DATA

SREF = .5030 34. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 127/ 0 RN/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CP81
3.480	146.800	6.75270	2.32420	-.07440	-.55700	-.01110	-3.68720	-.04450
3.480	142.600	8.12930	2.84200	-.06740	-.72020	-.01750	-3.58290	-.04080
3.480	138.340	9.57260	3.34760	-.10940	-.84850	-.01980	-3.30470	-.03100
3.480	134.110	10.99920	3.84740	-.11350	-1.04550	-.02100	-2.97060	-.02030
3.400	129.880	12.44850	4.41150	-.11200	-1.19840	-.02140	-2.56640	-.01010
3.480	138.330	9.65650	3.40800	-.09450	-.83990	-.01740	-3.31630	-.03110
GRADIENT		-.33682	-.12237	.00212	.03789	.07057	-.00000	-.00211

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MSFC 554 (SAIF) (RN/SRB (NO GRIT))

(R72F51) (22 JAN 73)

REFERENCE DATA

SREF = .5630 82.1N. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 RREF = .8000 INCH ZMRP = .0000
 SCALE = .0048

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 196/ 0 RN/L = 5.14 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLMH	CYN	CYNN	CBL	CA	CPB1
.891	152.510	4.70820	-1.03100	.93850	-5.32490	-.01510	-2.57150	-.01870
.891	156.670	3.48740	-1.09300	.88280	-3.02190	-.00020	-2.49150	.01020
.891	160.790	2.35970	-1.11040	.93910	-.55530	.00750	-2.40300	.04460
.891	164.920	1.52560	-1.06640	.16100	.20570	.00450	-2.30060	.07310
.891	169.000	.81170	-.53240	.08350	.26000	.02150	-2.15870	.09840
.891	160.770	2.39050	-1.13190	.57770	-.63420	.01030	-2.40310	.04380
GRADIENT		-.25667	.02427	-.05898	.34952	.00187	.02581	.00721

RUN NO. 195/ 0 RN/L = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLMH	CYN	CYNN	CBL	CA	CPB1
.897	152.030	5.15620	-1.03030	.66570	-3.72300	-.03070	-2.84980	-.12930
.897	156.380	3.65870	-.07400	.35220	-2.27010	-.02690	-2.81170	-.10040
.897	160.600	2.60330	.18810	.24190	-.46250	-.01470	-2.78110	-.07800
.897	164.790	1.71000	.24860	-.00830	.05050	-.01430	-2.69890	-.05550
.897	168.930	1.03560	.56970	-.02430	.23870	-.00430	-2.55580	-.03590
.897	160.560	2.57280	.17090	.23540	-.48620	-.02310	-2.75860	-.07750
GRADIENT		-.24200	.08378	-.04229	.24179	.00126	.01659	.00547

RUN NO. 194/ 0 RN/L = 7.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLMH	CYN	CYNN	CBL	CA	CPB1
1.190	151.150	7.77290	-1.08080	-.26710	-2.69590	-.02660	-3.68670	-.27540
1.190	155.370	5.27950	-2.31400	-.79030	2.89400	.01890	-3.60890	-.23370
1.190	160.050	3.76870	-2.18990	.32570	-.96340	.00300	-3.51840	-.18530
1.190	164.460	2.31210	-1.17190	.66980	.57250	-.00580	-3.43900	-.12060
1.190	168.790	1.32410	-.48970	.27580	.64700	-.00630	-3.34190	-.10080
1.190	160.020	3.82960	-2.17830	.29000	-1.09910	-.00410	-3.49990	-.16320
GRADIENT		-.36079	.05207	.05784	.10508	.00009	.02066	.01032

RUN NO. 123/ 0 RN/L = 7.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLMH	CYN	CYNN	CBL	CA	CPB1
3.480	152.210	8.41150	1.86290	-.07410	-.35520	-.01310	-2.72900	-.05110
3.480	156.410	4.10330	1.26430	-.07220	-.24290	-.00370	-3.70750	-.04020
3.480	160.590	2.93430	.80540	-.07260	-.14020	-.00570	-3.69760	-.04920
3.480	164.780	1.92230	-.10340	-.06120	-.06410	-.00570	-3.68150	-.03090
3.480	168.970	1.10820	-.40940	-.04580	-.05130	-.00340	-3.66250	-.03820
3.480	160.570	3.00620	.83350	-.07970	-.15840	-.00780	-3.69620	-.04920
GRADIENT		-.25878	-.14188	.00162	.51976	.00042	.00362	-.00059

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R7075J) (22 JAN 73)

REFERENCE DATA

SRF = .5030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BRP = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 203/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYN	CYMH	CBL	CA	CPB1
.599	171.550	.38440	-.06860	.04600	.09130	-.00540	-1.92060	.11640
.599	175.590	.14290	.26730	-.00570	-.17630	.00340	-1.67470	.11730
.599	179.520	-.05300	-.13110	-.02670	-.13900	.01490	-1.53080	.11360
.599	183.650	-.20680	-.11980	.02360	-.21360	.01310	-1.75020	.11040
.599	187.700	-.49770	.26400	.06000	-.09330	.00190	-1.99380	.09680
.599	179.580	-.04290	-.14690	-.03470	-.12710	.01540	-1.82680	.11050
GRADIENT		-.05238	.00795	.00143	-.01006	.00020	-.00555	-.00114

RUN NO. 204/ 0 RN/L = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYN	CYMH	CBL	CA	CPB1
.698	171.520	.52730	.93710	.00910	.06890	-.00580	-2.38890	.01200
.698	175.800	.19790	.78120	.01070	-.09070	-.00300	-2.11180	.07190
.698	179.820	-.05590	-.20300	-.02040	-.06690	-.00470	-1.84590	.09060
.698	183.650	-.27360	-.73570	-.02160	-.01700	-.00720	-2.18400	.04890
.698	187.730	-.66740	-.69920	-.04840	-.09720	.00260	-2.46510	.00320
.698	179.590	-.04360	-.23980	-.03760	-.03210	-.01090	-1.87420	.09720
GRADIENT		-.07071	-.11771	-.00363	-.00713	.00031	-.00587	-.00101

RUN NO. 205/ 0 RN/L = 6.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYN	CYMH	CBL	CA	CPB1
1.191	171.400	.67930	-.26290	.11470	.33800	-.00630	-3.20070	-.02970
1.191	175.530	.30200	.15650	.04880	.36190	.00350	-3.09390	-.02100
1.191	179.630	-.00360	.24010	.00810	.28420	.00180	-2.99040	-.01830
1.191	183.730	-.29220	.48710	.04670	.18550	.00090	-3.08250	-.03880
1.191	187.860	-.66470	.83300	.12140	.13690	.00340	-3.82220	-.04040
1.191	179.610	.00490	.24190	-.00220	.28400	-.00640	-2.88550	-.01670
GRADIENT		-.06080	.06822	.00029	-.03448	.00034	-.00126	-.00047

RUN NO. 119/ 0 RN/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYN	CYMH	CBL	CA	CPB1
1.980	171.380	.70100	-.08990	.04090	.29090	-.00060	-3.87670	-.04200
1.980	175.490	.30840	-.63430	.00400	.20840	.00480	-3.52180	-.01460
1.980	179.640	-.03840	.23390	-.03540	.17270	-.00150	-3.46490	-.02030
1.980	183.600	-.36280	.39610	.02360	.06940	-.00560	-3.84930	-.03480
1.980	187.920	-.77170	1.41530	.00280	-.08390	-.00020	-3.54460	-.09810
1.980	179.640	-.01870	.22750	-.04020	.17270	-.00190	-3.48780	-.02300
GRADIENT		-.08720	.18554	-.00136	-.01868	-.00023	.00067	-.00112

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MSFC 394 (SAIF) PRR/SRB (NO GRIT)

(R79F5J) (22 JAN 73)

REFERENCE DATA

SREF = .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .00149

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 110/ 0 RN/L = 7.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYM	CYNH	CBL	CA	CP81
3.480	171.510	.48150	-.41420	-.02720	.05590	.00220	-3.60650	-.04740
3.480	175.570	.18570	-.23620	-.02940	.10230	.00740	-3.49330	-.03740
3.480	179.630	-.00890	.26660	-.03580	.11810	.00690	-3.44400	-.03370
3.480	183.710	-.23610	.64180	-.01910	.06340	-.00250	-3.52180	-.04100
3.480	187.750	-.58120	.73680	-.02640	.00560	-.00740	-3.60580	-.05280
3.480	179.630	.00530	.24200	-.04310	.12370	-.00120	-3.44520	-.03630
	GRADIENT	-.06275	.07830	.00020	-.00344	-.00073	-.00067	-.00035

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MBFC 554 (3/17) FRR/SRB (NO GRIT)

079760 (22 JAN 73)

REFERENCE DATA

SREF = .0030 SQ. IN. XMRP = 0.0010 INCH
 LREF = .0000 INCH YMRP = .0000
 GREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 112.500
 FNDSTK = 1.100 AFYSTK = 1.100

RUN NO. 239/ 0 RN/L = 6.43 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.897	72.320	17.30210	23.04410	-.04080	-.60060	-.05380	.34730	-.41490
.897	76.710	17.59260	25.48480	-.05750	-1.07430	-.05070	1.16500	-.43940
.897	80.620	17.83350	17.96140	-.11780	-1.00250	-.05130	1.35320	-.47910
.897	84.530	18.24660	15.30730	-.09180	-1.32030	-.05780	1.41750	-.52210
.897	88.470	18.59130	13.24950	-.09600	-1.29760	-.05640	1.29960	-.58870
.897	90.660	17.93750	17.92530	-.13140	-.99630	-.05700	1.35850	-.47700
GRADIENT		.07655	-.63305	-.70361	-.03165	-.00032	.04487	-.01115

RUN NO. 141/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
2.480	72.490	19.74020	15.90450	.18790	-.35440	-.03760	1.44740	-.00530
3.480	76.490	20.33720	16.20280	.16930	-.33540	-.04130	1.31280	.00040
5.480	80.520	20.77370	16.20300	.15210	-.27290	-.04180	1.15490	.00960
3.480	84.190	21.00200	16.02310	.10700	-.12900	-.04520	.97340	.01200
3.480	86.490	21.03720	15.59930	.04060	.01530	-.04970	.76650	.01640
3.480	90.520	20.77350	15.29170	.13040	-.20070	-.04420	1.13780	.00870
GRADIENT		.06155	-.01967	-.00692	.02365	-.00069	-.04252	.00158

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MSFC 554 (BAIF) PRR/SRB (NO GRIT)

(R7977A) (22 JAN 73)

REFERENCE DATA

GREF = .3030 94.1N. XMRP = 6.0810 INCH
 LREF = .0000 INCH YMRP = .0000
 SREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FMOSTK = 1.100 AFTSTK = 1.100

RUN NO. 50/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.601	-8.610	-.79680	-.48940	-.12260	-.19380	-.00070	1.41920	-.26290
.601	-4.390	-.42380	.00210	.00390	-.15500	.00450	1.37500	-.23240
.601	-.540	-.05010	-.00650	.02950	.04040	-.00710	1.34700	-.21960
.601	3.470	.36660	-.32420	-.00930	.16540	-.01600	1.38210	-.23250
.601	7.510	.67890	.14630	-.02530	.33320	-.01850	1.40820	-.20140
.601	-.540	-.04310	-.04170	.01190	.01410	-.01560	1.34660	-.21350
GRADIENT		.09805	-.04042	-.00150	.03977	-.00254	.00087	-.00001

RUN NO. 51/ 0 RN/L = 6.26 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.893	-8.670	-.91880	-.31380	-.07330	-.21270	.00490	1.80850	-.22000
.893	-4.610	-.51220	.19520	.03640	-.15320	.01030	1.79430	-.27690
.893	-.540	-.08190	.05940	.05850	-.03040	.01460	1.74570	-.27120
.893	3.480	.40150	-.48080	.04550	.13670	.00360	1.80630	-.29340
.893	7.550	.77410	-.12950	.03660	.41690	-.00660	1.82590	-.33240
.893	-.540	-.08090	-.01950	.05160	-.05610	.00530	1.71980	-.26410
GRADIENT		.11293	-.08344	.00113	.03607	-.00082	.00146	-.00205

RUN NO. 52/ 0 RN/L = 6.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.195	-3.740	-.88150	-.73090	-.25550	.23530	.00120	2.42310	-.29740
1.195	-4.640	-.80700	-.01750	-.05810	.09690	-.00190	2.34090	-.29210
1.195	-.580	.02530	-.40040	-.02520	.31470	.00710	2.15850	-.24040
1.195	3.480	.57320	-1.08620	-.02630	.44370	-.00690	2.24500	-.30340
1.195	7.600	.88580	.00460	-.02870	.54490	-.01360	2.49420	-.31040
1.195	-.550	.05670	-.44090	-.01580	.33530	.00230	2.15400	-.24080
GRADIENT		.13503	-.15155	.00392	.04371	-.00081	.00043	-.00137

RUN NO. 110/ 0 RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.962	-8.820	-1.07430	-1.27810	-.30980	.36330	-.00450	1.92230	-.19440
1.962	-4.670	-.57090	-.12890	-.02330	.01300	.00470	1.89330	-.18110
1.962	-.550	-.04870	-.06720	.03510	-.00490	-.00010	1.80520	-.18970
1.962	3.510	.80160	-.19220	.02760	.17570	-.00690	1.88220	-.19650
1.962	7.690	.87530	.76240	.03620	.34290	-.01310	1.95500	-.19340
1.962	-.540	-.02210	-.05800	.04240	.00880	.00390	1.78230	-.18710
GRADIENT		.12110	-.00768	.00624	.01983	-.00141	-.00385	-.00086

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MSFC TWI 554

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MSFC 554 (SAIF) PER/SRB (NO GRIT)

(RTYFTA) (22 JAN 72)

REFERENCE DATA

MZP = .5030 SQ. IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0015

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 02/ 0 RN/L = 7.11 GRADIENT INTERVAL = -9.00/ 5.00

MACH	ALPHA	CNI	CLNI	CYN	CYNI	CBL	CA	CPB1
3.460	-8.750	-1.32870	-1.22160	-1.15910	.31720	.00420	1.25120	-.00450
3.460	-4.680	-.55720	-.71060	-.00620	.07790	.00530	1.29040	-.00200
3.460	-.940	-.08910	.07950	.07460	-.08510	-.00160	1.31850	-.00040
3.460	3.520	.47440	.23480	.07860	.00460	.00140	1.27300	-.00050
3.460	7.640	1.13540	1.07490	.17510	-.05000	-.00700	1.26660	-.00100
3.460	-.340	-.05260	.10690	.07070	-.09560	.00170	1.31420	-.00070
	GRADIENT	.12608	.11875	.01036	-.00804	-.00045	-.00066	.00038

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MSFC TWT 554

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MSFC 554 (BAIF) PRR/SRB (NO GRIT)

(R79F7B) (22 JAN 73)

REFERENCE DATA

BREF = .5050 82.1N. XMRP = 6.0810 INCH
 LREF = .8000 1NCH YMRP = .0000
 BREF = .8000 1NCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 PRCSTK = 1.100 APTSTK = 1.100

RUN NO. 77/ 0 RN/L = 5.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLNH	CYN	CYNH	CBL	CA	CPD1
.899	12.010	1.05720	.86290	-.01480	.48940	-.02850	1.39540	-.31610
.899	16.050	1.54480	1.38570	-.02790	.54780	-.03980	1.58030	-.34600
.899	20.140	2.12010	2.45620	.01000	.55120	-.03930	1.53780	-.36920
.899	24.220	2.83700	3.40870	.29020	.12700	-.04410	1.20090	-.41450
.899	28.310	3.63220	4.41350	.56200	.37560	-.06480	1.00140	-.43870
.899	32.140	4.13380	4.49640	-.01930	.50980	-.04430	1.33110	-.37810
GRADIENT		.15809	.21794	.04104	-.00511	-.00189	-.01172	-.00769

RUN NO. 78/ 0 RN/L = 6.35 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLNH	CYN	CYNH	CBL	CA	CPD1
.895	12.100	1.22120	.58850	.18650	.57110	-.01870	1.79180	-.34990
.895	16.190	1.78430	1.39380	.35760	.66840	-.03130	1.70920	-.30850
.895	20.350	2.47580	2.50200	.37880	.84140	-.04190	1.50280	-.30180
.895	24.540	3.29780	4.10990	.25450	1.13480	-.04720	1.49700	-.41170
.895	28.820	4.29800	6.74860	.38850	2.16050	-.06170	1.50880	-.44450
.895	33.350	5.30050	2.82440	.40690	.97620	-.04080	1.62970	-.30480
GRADIENT		.18647	.38046	.00718	.00756	-.00245	-.02353	-.00309

RUN NO. 79/ 0 RN/L = 8.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLNH	CYN	CYNH	CBL	CA	CPD1
1.199	12.210	1.30430	1.51860	-.03670	.83110	-.03090	2.41630	-.29460
1.199	16.390	1.89290	3.12830	-.11330	1.00880	-.03220	2.32900	-.33750
1.199	20.720	2.47700	5.60900	-.10020	1.00920	-.04130	2.24370	-.37670
1.199	25.120	4.20360	8.49230	.18750	.61340	-.04380	2.16370	-.40880
1.199	29.590	6.03590	11.21170	.46020	1.30580	-.05110	2.09710	-.42740
1.199	34.740	8.95990	9.78020	-.07840	.98120	-.04720	2.24680	-.37500
GRADIENT		.27181	.86291	.02973	.02133	-.00124	-.01880	-.00766

RUN NO. 103/ 0 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLNH	CYN	CYNH	CBL	CA	CPD1
1.962	12.370	1.69440	2.31480	.00080	.84390	-.01810	1.97720	-.19160
1.962	16.720	2.64030	4.37620	.06150	.49300	-.01920	1.95480	-.18000
1.962	21.100	4.38190	6.46830	.21330	.98210	-.02820	1.95040	-.19990
1.962	25.320	6.07890	8.81870	.26730	.66130	-.02810	2.00030	-.22510
1.962	29.390	7.81040	7.29790	.28990	.78120	-.02980	1.94780	-.23700
1.962	33.100	4.45810	8.63780	.28090	.88680	-.02190	1.88990	-.19860
GRADIENT		.35349	.28395	.02003	.01270	-.00071	.00014	-.00309

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MSFC 554 (SAIF) PRG/MSB 0 0 GRIT)

(079778) (22 JAN 73)

REFERENCE DATA

WREF = .5050 SQ. IN. XWRP = 6.0810 INCH
 LWRP = .9900 INCH YWRP = .0000
 BWRP = .6000 INCH ZWRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PII = 138.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 88/ 0 BN/L = 7.13 GRADIENT INTERVAL = -5.00/ 5.00

HACH	ALPHA	CON	CLHM	CYN	CYNN	CSL	CA	CPB1
3.480	12.240	2.19130	1.37430	-.11660	.00200	.00360	1.30250	-.09580
3.480	16.350	3.29490	1.30400	.00200	.01290	-.00290	1.44890	-.04800
3.480	20.520	4.86970	1.20270	.12160	-.22990	.00150	1.47700	-.02370
3.480	24.690	5.97190	1.19550	.09970	.04780	.00190	1.61440	-.09130
3.480	28.860	7.41040	1.02960	.11660	-.02000	.00100	1.75730	-.08990
3.480	20.110	1.89800	1.23260	.13290	-.25410	.00590	1.45910	-.09130
	GRADIENT	.31613	.00491	.01353	-.01353	-.00001	.02777	.00040

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MSFC INT 554

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MSFC 554 (2A1F) PRR/SRS (NO CRIT)

(RT977C) (22 JAN 73)

REFERENCE DATA

SREF = .5030 SQ. IN. XMRP = 8.0810 INCH
 LAIF = .8000 INCH YMRP = .0000
 BRZF = .8000 INCH ZMRP = .0000
 SCALE = .0048

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FNDSTK = 1.100 AFTSTK = 1.100

RUN NO. 72/ D RM/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
.600	32.610	4.55820	5.27330	.74810	2.40490	-.07600	1.01100	-.40230
.600	36.680	6.31380	6.61580	.53750	2.69110	-.09010	.82970	-.42790
.600	40.720	8.67120	8.75380	.38930	1.20190	-.10190	.65940	-.43630
.600	44.880	6.49390	8.78330	-.06780	.18710	-.10300	.49860	-.41860
.600	48.090	9.10290	10.02990	.00930	.04230	-.10240	.32750	-.39650
.600	40.780	5.70300	8.26850	.20730	1.25770	-.10190	.67870	-.43450
GRADIENT	.29133	.29378	-.05040	-.17388	-.00194	-.04127	.00032	

RUN NO. 73/ D RM/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
.695	32.510	5.51450	9.78850	.33090	.85220	-.06590	1.16420	-.39910
.695	37.630	7.08970	12.83390	.43470	2.31870	-.06370	.98240	-.44430
.695	42.080	9.32760	10.24960	.74110	1.36790	-.07940	.81900	-.47750
.695	46.610	11.92120	18.88120	.80320	3.02580	-.06480	.62880	-.44910
.695	50.250	13.35470	22.00570	.36900	2.43390	-.08820	.49900	-.41920
.695	42.090	9.36790	15.25810	.76120	1.40510	-.06090	.82040	-.47940
GRADIENT	.45422	.98353	.01907	.08764	-.00103	-.03625	-.00103	

RUN NO. 74/ D RM/L = 6.79 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
1.202	34.330	8.23410	14.20070	.32830	2.55730	-.05870	1.75890	-.38120
1.202	38.800	10.64870	15.78360	.40800	2.83890	-.05800	1.64440	-.42620
1.202	43.250	13.22040	15.98080	.63970	1.91960	-.04790	1.41440	-.43620
1.202	47.970	15.36370	16.84980	.88980	2.23440	-.04070	1.28410	-.43330
1.202	52.060	17.07670	18.94070	.88390	3.29610	-.03880	1.05330	-.36080
1.202	48.270	13.87610	16.10480	.62940	1.80880	-.04620	1.42140	-.43970
GRADIENT	.90511	.24043	.02248	-.02825	.00153	-.04085	-.00014	

RUN NO. 109/ D RM/L = 7.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CSL	CA	CPB1
1.256	34.350	8.78010	6.98870	.38910	.81710	-.03790	1.07800	-.23370
1.256	38.810	11.58330	8.36420	.42310	.84670	-.03840	1.91620	-.23820
1.256	43.180	13.28440	9.35030	.42780	.88120	-.03800	1.82180	-.23180
1.256	47.290	14.94050	10.74400	.43090	.90920	-.03870	1.88020	-.24800
1.256	51.970	16.44210	12.21870	.40820	1.10200	-.03470	1.81750	-.28040
1.256	43.120	13.18770	8.08510	.42810	.74280	-.04200	1.72340	-.24420
GRADIENT	.57977	.29321	.00247	.01080	.00009	-.00217	-.00097	

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MSFC TWT 554

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MSFC 554 (SAIF) PRE/SMB (NO GRIT)

07597YC (22 JAN 73)

REFERENCE DATA

REF * .5050 50.1W. XREF = 6.0910 INCH
 LREF * .6000 INCH YREF = .0000
 SREF * .8000 INCH ZREF = .0000
 SCALE * .0049

PARAMETRIC DATA

BETA * .000 PHI * 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 87/ D RM/L = 7.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CM	CA	CPBI
3.480	35.250	6.97870	2.09430	.10260	-.12060	.00210	1.91510	-.06470
3.480	37.470	10.3320	2.37730	.11610	-.12940	.01230	2.10660	-.06390
3.480	41.740	11.81330	4.41100	.10220	-.06790	.00710	2.10790	-.06410
3.480	46.000	13.09260	6.40480	.11400	-.04080	.01130	2.01800	-.06030
3.480	50.230	14.28740	8.56230	.12250	-.00900	.01410	1.90830	-.07930
3.480	41.760	11.91700	4.55720	.10930	-.04820	.00770	2.11070	-.06220
GRADIENT		.31062	.36342	.00068	.00737	.00054	-.00251	.00034

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MSFC THT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79F7D) (22 JAN 73)

REFERENCE DATA

BREF = .3030 82.1N. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0048

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWCSTK = 1.100 AFTSTK = 1.100

RUN NO. 226/ D RN/L = 5.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
.599	57.250	10.03560	13.85860	-.13330	1.98990	-.13320	.37160	-.45730
.599	56.350	11.79630	17.23350	-.50120	1.38960	-.11750	.12650	-.34210
.599	60.430	12.82320	19.17470	-.23810	1.56950	-.11880	-.07710	-.44160
.599	64.460	13.55800	20.08700	-.48690	1.09420	-.11500	-.14330	-.42060
.599	68.530	14.23730	20.51140	-.63140	.20010	-.13450	-.26070	-.43770
.599	60.450	12.74270	18.90420	-.79420	1.25100	-.13360	-.08280	-.35940
GRADIENT		.25001	.39767	-.02421	-.38044	-.00000	-.03874	-.00095

RUN NO. 225/ D RN/L = 6.54 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
.895	53.020	13.73210	22.07170	.36950	2.20820	-.09330	.53180	-.29490
.895	57.170	15.19060	24.35700	.58070	3.56250	-.10390	.49210	-.33940
.895	61.260	16.13400	25.91140	.75960	4.20240	-.11230	.41970	-.39200
.895	65.270	16.32280	25.56940	.82540	3.77920	-.10930	.20340	-.40170
.895	69.240	16.76190	23.61750	.67460	2.93260	-.11330	.28080	-.41500
.895	51.290	13.94380	25.79200	.74330	4.17040	-.10850	.41140	-.39340
GRADIENT		.17805	.10887	.02124	.04747	-.00113	-.02752	-.00749

RUN NO. 224/ D RN/L = 6.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
1.103	59.320	16.47870	19.87660	.64790	2.58630	-.04970	1.26130	-.30000
1.103	57.400	17.60870	20.92790	.86840	2.40650	-.03970	1.23130	-.30980
1.103	61.470	18.73450	21.44780	.68050	2.46510	-.03740	1.29640	-.34820
1.103	65.490	19.82840	20.85670	.60090	2.46240	-.03690	1.41190	-.36060
1.103	60.500	20.31090	20.31460	.63040	2.52270	-.04240	1.49700	-.43530
1.103	61.510	18.71670	21.42590	.67980	2.44760	-.03690	1.29640	-.34880
GRADIENT		.23990	.02055	-.00054	-.00191	.00039	.01906	-.00644

RUN NO. 264/ D RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
1.051	55.100	15.20470	13.85710	.05010	2.60620	-.02770	1.78390	-.14790
1.051	57.200	16.47920	14.88780	.13340	2.46480	-.02180	1.75000	-.16620
1.051	61.320	17.67810	15.95590	.14580	2.49290	-.02150	1.53680	-.19170
1.051	65.440	18.88370	16.99090	.20130	2.42440	-.01710	1.55920	-.20010
1.051	69.520	19.71880	17.77380	.09280	2.76800	-.00230	1.41360	-.20140
1.051	61.320	17.56170	15.81950	.09480	2.68030	-.01910	1.42800	-.19710
GRADIENT		.27811	.24150	.00374	.00782	.00133	-.02215	-.00536

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MSFC 554 (SAIF) PHR/SRB (NO CRIT)

(070F7D) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

BREF = .5030 94.IN. XMRP = 0.0010 INCH
 LREF = .0000 INCH YMRP = .0000
 SREF = .0000 INCH ZMRP = .0000
 SCALE = .0040

BEI = .000 PHI = 125.000
 FWDSTR = 1.100 AFTSTR = 1.100

RUN NO. 150/ 0 RW/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CMH	CLMH	CYH	CYNH	CBL	CA	CPH1
3.480	52.490	14.54170	9.77800	.20810	1.18430	-.05470	1.05720	-.03470
3.460	56.560	15.86480	11.39300	.30860	1.22530	-.05720	1.05140	-.04340
3.480	60.660	16.78900	12.07970	.35100	1.20360	-.05280	1.75020	-.03050
3.480	64.700	17.77450	13.77560	.38440	1.20150	-.04470	1.63650	-.02640
3.480	68.770	18.64890	14.52090	.39740	1.25710	-.05140	1.50370	-.01870
3.460	60.680	16.81690	12.77050	.33610	1.22850	-.05500	1.72150	-.03550
GRADIENT		.25501	.29165	.00711	.00299	.00047	-.02708	.00120

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F7E) (22 JAN 73)

REFERENCE DATA

SREF = .9050 SQ. IN. XMRP = 6.0610 INCH
 LREF = .9000 INCH YMRP = .0000
 BREF = .6000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PMJ = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 233/ 0 RW/L = 5.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.599	72.280	14.06470	21.20400	-.59550	.64460	-.13990	.12520	-.37010
.599	76.230	14.09600	19.42210	-.28050	1.77650	-.15550	.80190	-.39100
.599	80.170	14.16900	16.29710	.27470	1.93140	-.15320	1.23300	-.44580
.599	84.110	14.37320	13.13180	.19200	1.83940	-.14680	1.25	-.51310
.599	88.060	14.81090	10.39480	.40640	1.30070	-.13960	1.12	-.57030
.599	90.210	14.17460	16.29080	.30550	2.08080	-.15220	1.25920	-.45560
GRADIENT		.04484	-.70753	.06285	.03498	.00023	.04645	-.01337

RUN NO. 234/ 0 RW/L = 6.42 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.597	72.730	16.93760	21.31080	.56430	2.59470	-.11130	.52090	-.28840
.597	76.630	17.25000	18.65700	.59140	2.31030	-.10820	1.17420	-.50100
.597	80.540	17.60500	16.06420	.47530	2.45650	-.11130	1.37540	-.42930
.597	84.450	17.86450	13.32060	.47710	2.00010	-.11540	1.45930	-.47570
.597	88.380	18.14800	11.32890	.43000	1.93340	-.11280	1.31500	-.52160
.597	90.550	17.45500	16.04800	.46380	2.45700	-.11090	1.38710	-.42330
GRADIENT		.07758	-.54883	-.00973	-.04175	-.00026	.04733	-.00808

RUN NO. 140/ 0 RW/L = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
3.480	72.440	19.40020	14.68400	.46690	1.16960	-.06040	1.48040	.00630
3.480	76.430	20.02530	14.82190	.43280	1.21060	-.06270	1.39310	.01190
3.480	80.450	20.49670	14.59780	.46930	1.26240	-.06170	1.20950	.02120
3.480	84.440	20.76180	14.27130	.44900	1.26890	-.06540	1.04510	.02990
3.480	88.420	20.85200	13.78080	.40890	1.39540	-.07410	.84520	.02770
3.480	90.450	20.49450	14.70800	.45070	1.28040	-.06810	1.20970	.02140
GRADIENT		.06981	-.05791	-.00301	.01275	-.00075	-.03946	.00137

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MSFC TWT 554

PAGE 02

MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79F7F) (22 JAN 73)

REFERENCE DATA

MREF = .5030 SQ. IN. XMRP = 6.0010 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 254/ 0 RN/L = 5.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYM	CYNN	CSL	CA	CPB1
.500	91.820	14.52650	2.78180	.25690	2.06730	-.13200	1.37600	-.45530
.600	95.800	14.51470	1.52110	.15180	2.39220	-.14530	.88200	-.41540
.800	99.810	14.48640	1.13460	.37890	2.16700	-.15510	.33610	-.41800
.600	103.810	14.22210	.01810	.58300	1.62440	-.16460	-.25410	-.48140
.600	107.760	13.95490	-1.42700	.78510	1.73640	-.15440	-.26940	-.44700
.600	99.790	14.44980	1.06400	.36100	2.18870	-.14470	.35360	-.40800
GRADIENT		-.02393	-.24845	.03727	-.03365	-.00161	-.12591	-.00072

RUN NO. 255/ 0 RN/L = 6.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYM	CYNN	CSL	CA	CPB1
.898	91.500	17.86690	7.71370	.17600	1.91390	-.17820	1.53660	-.45060
.898	95.430	17.72490	5.81730	.16470	1.99810	-.17390	1.21820	-.43420
.898	99.360	17.59260	3.84240	.15700	2.10420	-.17880	.93630	-.42260
.898	103.320	17.14340	1.07500	.17370	2.26360	-.17230	.43240	-.40100
.898	107.260	16.61060	-1.34920	.19740	2.50870	-.17390	-.05120	-.37390
.898	99.360	17.52760	3.41430	.15730	2.14310	-.18300	.68680	-.42070
GRADIENT		-.06005	-.37530	.00132	.04091	.00026	-.10063	.00464

RUN NO. 136/ 1 RN/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLMH	CYM	CYNN	CSL	CA	CPB1
3.480	91.570	20.67130	11.64800	.22130	1.56300	-.12310	.97770	.04380
3.480	95.600	20.50100	11.11680	.14760	1.35080	-.12560	.66860	.03090
3.480	99.560	20.04780	10.69810	.11260	1.22030	-.12690	.36280	.02690
3.480	103.620	19.37470	10.14610	.10260	1.17920	-.12640	.04300	.01580
3.480	107.920	18.55560	9.52270	.06640	1.10840	-.12560	-.31360	.00960
3.480	99.560	20.04610	10.63070	.12700	1.29730	-.12640	.87460	.02810
GRADIENT		-.13295	-.13015	-.00664	-.02664	-.00015	-.03006	-.00230

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MSFC TWT 554

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MSFC 554 (SA1F) PRR/SRB (NO GRIT)

(R79F76) (22 JAN 73)

REFERENCE DATA

SREF = .5050 SQ. IN. XMRP = 5.0810 INCH
 LREF = .0000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 220/ 0 RM/L = 5.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
.000	111.500	13.75000	-2.81380	.89560	1.51130	-.12660	-.90890	-.45480
.000	115.330	12.70400	-4.12150	.80630	-.38990	-.12890	-1.23170	-.38120
.000	119.530	12.08000	-6.00400	.51300	.25720	-.13360	-1.94520	-.38470
.000	123.630	10.67130	-5.98480	.51230	1.31060	-.12600	-2.25050	-.34080
.000	127.680	9.41490	-5.53340	.64740	2.10220	-.11620	-2.31820	-.29890
.000	119.480	12.14810	-5.93060	.41430	.24800	-.14200	-1.94280	-.32550
GRADIENT		-.26485	-.17962	-.01933	.07169	.00061	-.09468	.00821

RUN NO. 218/ 0 RM/L = 6.47 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
.000	110.810	16.12750	-3.25990	.23820	2.70420	-.16300	-.46700	-.40110
.000	114.340	15.27810	-4.77440	.24820	2.51130	-.16010	-1.04560	-.39540
.000	118.680	14.37970	-6.01400	.25600	2.60800	-.15490	-1.53440	-.38410
.000	122.950	13.41560	-6.33490	.30220	2.95240	-.14860	-1.95570	-.37500
.000	127.000	12.93480	-6.05940	.34100	3.66850	-.15260	-2.38860	-.39150
.000	118.640	14.31720	-5.97980	.20400	2.55270	-.16110	-1.51150	-.38310
GRADIENT		-.20385	-.17848	.00944	.05869	.00060	-.11737	.00088

RUN NO. 216/ 0 RM/L = 6.87 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
1.197	110.560	19.88260	5.00120	.11700	2.10850	-.18310	-.89880	-.43440
1.197	114.680	18.82900	4.29320	.10950	2.14370	-.17850	-1.36900	-.39610
1.197	118.730	17.79630	3.38530	.13670	2.33970	-.16720	-1.80690	-.37670
1.197	122.830	16.49880	2.66890	.13790	2.31310	-.15440	-2.21280	-.35920
1.197	126.880	15.11840	1.15820	.15110	2.47350	-.15080	-2.60600	-.35110
1.197	118.680	17.70540	3.37960	.14160	2.34440	-.16970	-1.79250	-.37430
GRADIENT		-.26091	-.22847	.00237	.02213	.00218	-.10444	.00499

RUN NO. 167/ 0 RM/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNN	CBL	CA	CPB1
1.085	112.690	18.27230	6.83790	.30200	2.30830	-.15670	-.98870	-.21030
1.085	114.770	17.70360	6.81610	.22210	2.01330	-.14970	-1.25690	-.21340
1.085	118.840	16.82790	6.18350	.22870	2.06990	-.14840	-1.70600	-.22260
1.085	123.000	15.07710	5.86380	.18720	1.94600	-.13340	-2.12600	-.20800
1.085	127.080	13.63480	5.06160	.24360	2.18430	-.13040	-2.52140	-.17550
1.085	118.830	18.30370	6.28510	.30150	2.35780	-.15060	-1.69430	-.21980
GRADIENT		-.32286	-.12348	-.00369	-.00898	.00193	-.10674	.00219

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NSFC TWT 334

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NSFC 354 (3A1F) PRR/SPR (NO GRIT)

(079F76) (21 JAN 73)

REFERENCE DATA

XREP = .5030 80.1M. XMRP = 0.0810 INCH
 LREP = .8700 INCH YMRP = .0000
 SREP = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 188.000
 FPG8TK = 1.100 APT8TK = 1.100

RUN NO. 131/ 0 RM/L = 7.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNH	CLNH	CYN	CYNH	CSL	CA	CP81
3.480	111.320	17.57700	9.44720	.11190	1.13190	-.10200	-.66050	-.01480
3.480	115.390	16.46500	7.78580	.06000	1.71500	-.10660	-1.02090	-.02070
3.480	119.430	15.33710	7.16190	.00130	.98150	-.09850	-1.45220	-.03350
3.480	123.510	14.07280	6.47450	.03850	.94410	-.09130	-1.90010	-.03710
3.480	127.550	12.68270	5.57200	.03620	.90630	-.07930	-2.34000	-.03110
3.480	117.420	15.38420	7.21170	.07350	1.02820	-.09150	-1.46010	-.03290
GRADIENT		-.30034	-.17427	-.00427	-.01260	.00148	-.10872	-.00121

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MSFC TWY 554

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MSFC 554 (S1F) PAR/SRS (NO CRIT)

(R79F7H) (22 JAN 73)

REFERENCE DATA

BREF = .3050 30.1N. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 PWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 185/ D RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNH	CBL	CA	CP81
.599	130.890	6.74550	.60570	1.69760	2.67000	-.07470	-2.06500	-.26430
.599	135.090	6.37250	-2.98540	1.54010	-2.33060	-.07950	-2.21490	-.17050
.599	139.150	5.81660	-3.77780	1.61920	-3.16070	-.08270	-2.40970	-.11160
.599	143.280	4.94630	-2.49280	1.45100	-2.54230	-.05150	-2.56730	-.06410
.599	147.380	4.20510	-1.76960	1.27140	-3.16010	-.05210	-2.55880	-.02410
.599	139.130	5.63570	-3.71840	1.64670	-3.26750	-.06470	-2.40810	-.10980
GRADIENT		-.25547	-.10363	-.02290	-.28886	.00178	-.03153	.01426

RUN NO. 136/ D RN/L = 6.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNH	CBL	CA	CP81
.898	129.190	13.13480	-3.45310	.07150	2.70690	-.12680	-2.29670	-.41200
.898	133.690	11.08840	-1.38440	.03230	1.24210	-.11950	-2.62770	-.33440
.898	138.090	9.17100	-.84620	-.01420	2.00410	-.09840	-2.86140	-.24740
.898	142.490	6.97720	-2.41230	.09330	1.53240	-.07300	-2.96320	-.19280
.898	146.700	5.49030	-3.27780	.85750	-.35950	-.08120	-2.92130	-.07280
.898	138.100	8.06540	-.94930	-.01120	2.00540	-.09940	-2.61190	-.25390
GRADIENT		-.44301	-.01351	.02756	-.15532	.00415	-.03638	.02009

RUN NO. 187/ D RN/L = 6.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNH	CBL	CA	CP81
1.803	128.200	15.19860	-1.04320	-.06330	1.69350	-.13670	-2.52510	-.41630
1.803	132.620	13.61920	-.30740	-.05350	1.61040	-.11840	-2.96520	-.34130
1.803	137.010	11.84890	-1.04530	-.05750	1.60590	-.11240	-3.31730	-.29550
1.803	141.470	9.93140	-1.49890	-.02970	1.25130	-.09250	-3.55810	-.28950
1.803	145.840	8.04950	-2.48200	-.04200	1.07740	-.07660	-3.61690	-.27270
1.803	137.000	11.78290	-.34890	-.05730	1.54640	-.10620	-3.91140	-.29940
GRADIENT		-.40778	-.00992	-.00212	-.04864	.00331	-.06246	.00787

RUN NO. 172/ D RN/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYN	CYNH	CBL	CA	CP81
1.984	126.410	14.18860	4.72710	-.06170	.64890	-.09750	-2.60360	-.12740
1.984	132.810	12.70630	4.31680	-.08050	.69630	-.08790	-3.07970	-.15420
1.984	137.190	11.13610	3.59580	-.08230	.98670	-.07340	-3.39020	-.10710
1.984	141.610	9.98810	2.63800	-.08610	.48900	-.05900	-3.82570	-.16480
1.984	145.920	8.07690	2.02860	-.09990	.40460	-.05030	-3.88640	-.16410
1.984	137.110	11.24030	3.61330	-.08760	.57180	-.07940	-3.98410	-.17230
GRADIENT		-.34990	-.13470	-.00210	-.01504	.00261	-.05629	-.00191

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79F7H) (22 JAN 73)

REFERENCE DATA

UREP = .3030 SQ. IN. XMRP = 8.0810 INCH
 LREP = .8000 INCH YMRP = .0000
 BREP = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWDSTX = 1.100 AFTSTX = 1.100

FUT NO. 128/ D RN/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

HACH	ALPHA	CNM	CLMM	CYM	CYMM	CEL	CA	CPH1
3.480	146.830	6.84510	2.49480	-.02030	.27620	-.04250	-3.70050	-.04890
3.480	142.630	7.98780	2.97860	-.01210	.34250	-.04690	-3.56110	-.04850
3.480	138.330	9.38910	3.45360	-.00400	.41710	-.06390	-3.53090	-.04340
3.480	134.180	10.77570	3.99430	.01460	.53710	-.07240	-2.99950	-.03320
3.480	129.930	12.20370	4.52790	.02160	.68400	-.08650	-2.60300	-.02690
3.480	125.370	9.47210	3.45520	-.00370	.48190	-.08700	-3.34150	-.04270
	GRADIENT	-.32913	-.12029	-.00261	-.02439	.00229	-.06573	-.00140

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MSFC TWY 554

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MSFC 554 (BAIF) PRR/SRS (NO CRIT)

(R79F71) (22 JAN 73)

REFERENCE DATA

BREF = .9030 34.174. XMRP = 6.0810 INCH
 LREF = .2000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 F-11 = 135.000
 FWDSTK = 1.100 AF STK = 1.100

RUN NO. 197/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.599	152.610	3.58440	-1.49960	.85810	-1.74900	-.03490	-2.58840	-.04140
.599	158.700	2.86910	-1.43270	.63070	-.65100	-.04340	-2.54620	-.02180
.599	160.810	2.06240	-1.33060	.29100	.18530	-.02310	-2.44740	.01990
.599	164.940	1.34590	-1.22820	.07170	.48700	-.02010	-2.32940	.05900
GRADIENT		-.18302	.02230	-.06367	.18349	.00153	.02132	.00835

RUN NO. 198/ 0 RN/L = 6.26 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
.695	152.140	4.21820	-1.94840	.76090	-1.19120	-.05600	-2.91480	-.15320
.695	156.410	3.13110	-1.02360	.30440	.18210	-.04810	-2.68480	-.15100
.695	160.610	2.31220	-.55340	-.01930	.60670	-.02920	-2.83920	-.13170
.695	164.820	1.57350	-.04620	-.01240	.47710	-.02290	-2.70400	-.09090
.695	168.930	.98690	.33850	-.00520	.45950	-.01740	-2.56080	-.04960
.695	160.600	2.29770	-.54220	-.00560	.62780	-.03590	-2.62100	-.13100
GRADIENT		-.19115	.13235	-.04420	.06609	.00244	.02114	.00835

RUN NO. 199/ 0 RN/L = 6.69 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.199	151.350	6.62560	-2.15570	.00070	2.08180	-.03590	-3.72540	-.28930
1.199	155.710	4.89280	-2.57480	.61720	-1.57450	-.05930	-3.72080	-.25060
1.199	160.100	3.49470	-2.42290	1.09040	-.46280	-.03880	-3.61450	-.19570
1.199	164.500	2.09410	-1.62460	.99360	.91180	-.02450	-3.48280	-.13640
1.199	168.770	1.15130	-.90680	.16920	.78710	-.01960	-3.36930	-.10020
1.199	160.040	3.51500	-2.39510	1.0340	-.49940	-.04240	-3.61580	-.19740
GRADIENT		-.31519	.08802	.00733	-.00231	.00293	.02178	.01129

RUN NO. 121/ 0 RN/L = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CBL	CA	CPB1
1.900	159.980	3.95430	-.63620	.35960	-.52490	-.02240	-3.89990	-.15880
1.900	164.350	2.62800	-1.19030	.75240	.29280	-.00630	-3.84340	-.13850
1.900	168.610	1.42190	-1.40510	.59480	.56610	-.00790	-3.73990	-.08440
GRADIENT		-.29348	-.08684	.02743	.12659	.00169	.01653	.00630

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R78F71) (22 JAN 73)

REFERENCE DATA

REF = .5030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 125.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 130/ D RW/L = 7.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CIN	CLIN	CYN	CYNH	CBL	CA	CP81
3.480	168.880	1.10680	-.20080	.18520	.35240	-.00640	-3.66720	-.08860
3.480	154.770	1.89750	.17820	.11860	.19610	-.00300	-3.69110	-.05260
3.480	160.610	2.86050	.77040	-.01690	.13030	-.00930	-3.71010	-.04500
3.480	156.440	4.01340	1.54420	-.04.20	.24610	-.01680	-3.72400	-.04520
3.480	152.240	5.30930	2.08030	-.03710	.28630	-.02610	-3.74520	-.04670
3.480	160.600	2.92240	.81920	-.01680	.13450	-.01080	-3.70930	-.04550
	GRADIENT	-.25275	-.14256	.01450	.00096	.00123	.00454	-.00065

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MSFC TWY 854

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MSFC 884 (BAIF) PRR/SRB (NO CRIT)

(R79F7J) (22 JAN 73)

REFERENCE DATA

BREF = .9030 84 IN. XGRP = 6.0810 INCH
 LREF = .4000 INCH YGRP = .0000
 BREF = .8000 INCH ZGRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 120/ 1 RN/L = 7.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
1.965	171.380	.68450	-1.06970	.27600	.63340	-.01490	-3.68310	-.04040
1.965	175.490	.28910	-.62870	.01640	.24130	-.00620	-3.49180	-.01740
1.965	179.650	-.06700	.24930	-.03320	.17860	-.00300	-3.49310	-.01790
1.965	183.770	-.32770	.96090	-.02170	.12980	-.00610	-3.53830	-.02240
1.965	187.900	-.67810	1.50320	-.10560	.01200	-.00880	-3.62230	-.04230
1.965	179.640	-.03290	.19080	-.03750	.18160	-.01190	-3.44110	-.01930
GRADIENT		-.08080	.16384	-.01938	-.03275	.00030	.00086	-.00021

RUN NO. 115/ 0 RN/L = 7.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
3.480	171.520	.46030	-.35870	.09390	.24940	.00710	-3.60980	-.04910
3.480	175.570	.17150	-.24100	-.01440	.10710	.00340	-3.49030	-.03410
3.480	179.030	-.02080	.16510	-.04290	.11930	-.00340	-3.48030	-.03500
3.480	183.700	-.22680	.57390	-.04560	.11930	-.00370	-3.51510	-.03910
3.480	187.740	-.50690	.74220	-.04050	.12890	-.00640	-3.59890	-.04840
3.480	179.620	.01110	.18870	-.03900	.10060	.00680	-3.44440	-.03570
GRADIENT		-.05754	.07437	-.00739	-.00573	-.00069	-.00009	-.00009

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MSFC TWT 554

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MSFC 554 (8A1F) PRR/SRB (NO CRIT)

(R79F8E) (22 JAN 73)

REFERENCE DATA

SREF = .8030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 187.800
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 260/ D RN/L = 6.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.899	72.730	16.60530	21.14810	.32120	1.27660	-.03040	.53800	-.39580
.899	76.620	16.97830	18.81340	.33590	1.01890	-.03640	1.09680	-.42040
.899	80.530	17.30050	15.96480	.28360	1.18420	-.04090	1.32280	-.46330
.899	84.440	17.61380	13.24650	.27690	.82180	-.04220	1.40420	-.52310
.899	88.380	18.26340	11.25700	.24090	.88420	-.05080	1.29410	-.57720
.999	80.570	17.26240	15.92210	.27700	1.19720	-.04100	1.32380	-.46280
GRADIENT		.09081	-.64288	-.00562	-.02456	-.00110	.04647	-.01190

RUN NO. 163/ D RN/L = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
3.480	72.410	19.26330	13.86430	.37130	.98920	-.02910	1.47180	.00430
3.480	76.360	19.86870	14.06970	.37490	.98970	-.02940	1.34450	.01090
3.480	80.420	20.32960	13.94620	.37240	1.01180	-.03080	1.19630	.02160
3.480	84.390	20.60860	13.59330	.35590	1.01320	-.03780	1.02570	.02670
3.480	88.390	20.69000	13.09860	.31420	1.03470	-.03170	.82110	.03090
3.480	90.420	20.34070	13.98020	.36470	1.00710	-.03080	1.19740	.02170
GRADIENT		.08986	-.08020	-.00333	.00331	-.00034	-.04053	.00173

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MSFC 984 (BAIF) PRR/SRB (NO CRIT)

(RT963E) (22 JAN 73)

REFERENCE DATA

BREF = .8030 SS.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.200 AFTSTK = 1.200

RUN NO. 731/ 0 RM/L = 6.58 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.899	72.720	16.88570	20.80440	-.23500	2.33830	.26010	.65700	-.36540
.898	76.610	16.98120	18.23890	-.32900	2.58510	.27070	1.09680	-.35680
.899	80.520	17.43120	15.69140	-.32260	2.32830	.27800	1.31840	-.23150
.899	84.450	17.82680	13.17190	-.39670	2.47030	.28100	1.38160	-.41130
.899	88.360	18.08840	10.80330	-.44210	2.48030	.28670	1.28260	-.45770
.899	90.580	17.42630	15.70280	-.30850	2.32840	.27620	1.32640	-.37830
GRADIENT		.08312	-.64081	-.01231	.00328	.00060	.03925	-.00611

RUN NO. 151/ 0 RM/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
3.480	72.420	19.54620	14.01640	-.32470	1.59780	.22180	1.46610	.00270
3.480	76.410	20.14200	14.17810	-.33610	1.57350	.22690	1.54050	.01020
3.480	80.430	20.59700	14.08420	-.34270	1.56820	.23410	1.20380	.01660
3.480	84.420	20.92610	13.68230	-.34140	1.50520	.23000	1.04740	.01440
3.480	88.390	21.03100	13.07760	-.37230	1.48850	.23270	.88690	.02050
3.480	90.490	20.81820	14.01960	-.33010	1.55310	.23220	1.21020	.01680
GRADIENT		.09301	-.05827	-.00251	-.00813	.00062	-.03633	.00140

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MSFC TW7 554

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MSFC 524 (SAIF) PRR/SRB (NO CRIT)

(RYSOSE) (22 JAN 73)

REFERENCE DATA

SREF = .5030 34.1N. XMRP = 5.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.200 AFTSTK = 1.200

RUN NO. 264/ 0 RN/L = 6.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CBL	CA	CPB1
.895	72.760	16.53790	21.57410	.02690	-5.79290	.05920	.84420	-.44850
.895	76.670	16.56800	19.48440	.02990	-5.78500	.05640	1.15910	-.47340
.895	80.590	16.98790	17.01980	.11310	-5.90770	.04890	1.24880	-.50260
.895	84.500	19.31290	13.93260	.16080	-5.93600	.05230	1.38780	-.55890
.895	88.410	19.55990	11.17080	.19320	-5.80910	.05630	1.27950	-.59230
.895	90.620	16.62260	16.89230	.10400	-5.95770	.05310	1.24470	-.50440
GRADIENT	.08149	-.67355	.01184	-.00474	-.00025	.02734	-.00946	

RUN NO. 132/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNN	CBL	CA	CPB1
3.480	72.540	19.87590	16.95820	-.33540	-1.46590	.02650	1.04880	-.00190
3.480	76.540	20.24810	17.35810	-.37800	-1.47350	.01860	.89310	.00360
3.480	80.560	20.66610	17.41860	-.41600	-1.34800	.02370	.89840	.01150
3.480	84.540	20.91870	17.38330	-.47370	-1.25930	.00670	.46760	.01430
3.480	88.550	21.01090	17.03840	-.54380	-1.09870	.00760	.27600	.01620
3.480	90.570	20.84490	17.47800	-.43480	-1.30890	.01720	.88430	.01120
GRADIENT	.08345	.00466	-.01181	.02481	-.00117	-.04884	.00118	

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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HMFC TWT 334

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HMFC 594 (BAIF) PRP/SRB (NO CRIT)

(R79C7E) (22 JAN 73)

REFERENCE DATA

SREF = .0030 SQ. IN. XMRP = 6.0810 INCH
LREF = .8000 INCH YMRP = .0000
BREF = .8000 INCH ZMRP = .0000
SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 135.000
FWSTK = 1.200 AFTSTK = 1.200

RUN NO. 285/ 0 RN/L = 6.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
.897	72.730	17.04450	20.93940	.82550	3.65580	-.23500	.58460	-.40320
.897	76.620	17.20460	18.51750	.86140	3.63670	-.23170	1.00000	-.43840
.897	80.540	17.30080	16.10170	.72690	3.72520	-.23620	1.30000	-.46120
.897	84.450	17.06620	13.59230	.83160	3.68120	-.23940	1.42000	-.47350
.897	88.370	17.89850	11.24320	.78300	3.59590	-.23860	1.30540	-.47940
.897	90.580	17.52630	16.10230	.80340	3.76730	-.23310	1.37220	-.46010
GRADIENT	.06049	-.62176	-.00243	-.01012	-.00038	.04230	-.00000	-.00000

RUN NO. 153/ 0 RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CBL	CA	CPB1
3.480	72.460	19.51420	14.97300	.72330	1.98780	-.15390	1.47870	.00420
3.480	76.440	20.03770	15.05880	.73930	2.06130	-.16090	1.34360	.01000
3.480	80.460	20.55170	14.93280	.73780	2.16600	-.16320	1.19890	.02170
3.480	84.430	20.64020	14.63800	.73300	2.24890	-.16700	1.03370	.02540
3.480	88.430	20.91950	14.03650	.70370	2.36340	-.17680	.62760	.03040
3.480	90.480	20.58080	14.53840	.73780	2.16790	-.15860	1.19450	.02160
GRADIENT	.08900	-.05498	-.00114	.02961	-.00129	-.04028	.00170	.00170

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MSFC YWT 554

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MSFC 554 (SAIF) PRN/BRB (NO CRIT)

(RT9H1E) (22 JAN 73)

REFERENCE DATA

PARAMETRIC DATA

GREF = .5030 SQ.IN. XMRP = 0.0010 INCH
 LREF = .0000 INCH YMRP = .0000
 BREF = .0000 INCH ZMRP = .0000
 SCALE = .0049

BETA = .000 PHI = .900
 FWDSTK = 2.100 AFTSTK = 2.100

RUN NO. 259/ 0 RN/L = 6.32 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM	CLMM	CYM	CYMH	CBL	CA	CPB1
.897	72.720	17.81480	20.83960	.09140	-2.87360	.04760	.86150	-.44380
.897	76.630	17.82360	18.82980	.10450	-2.85700	.04470	1.20670	-.46360
.897	80.560	18.25420	18.26540	.16540	-2.94910	.04900	1.20830	-.50360
.897	84.480	18.61500	13.43840	.16290	-2.93690	.04300	1.38070	-.55490
.897	88.400	19.02150	11.03210	.22680	-2.94700	.04870	1.26300	-.60220
.897	90.590	18.18180	18.20370	.15910	-2.93880	.04420	1.20140	-.50840
GRADIENT		.09708	-.83291	.00691	-.00568	.00001	.02440	-.01041

RUN NO. 102/ 0 RN/L = 7.08 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM	CLMM	CYM	CYMH	CBL	CA	CPB1
3.480	72.470	19.58770	15.23900	.01560	-1.06390	.05110	1.27310	-.03090
3.480	76.440	20.18950	15.52190	.00370	-1.15080	.04320	1.12380	-.02330
3.480	80.480	20.70030	15.38010	.01520	-1.16270	.05740	1.03780	-.01410
3.480	84.450	21.04670	14.94910	.06000	-1.31990	.05210	.97040	-.01130
3.480	88.450	21.18710	14.34170	.00520	-1.16340	.04930	.82840	-.00920
3.480	90.470	20.84450	14.93690	.11960	-1.32910	.05900	1.20200	-.01500
GRADIENT		.10050	-.05923	.00089	-.00684	.00014	-.02617	.00137

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M37C TWT 554

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M37C 554 (SAIF) PRR/SRB (NO GRIT)

(R79HSE) (22 JAN 73)

REFERENCE DATA

SREF = .9030 SQ.IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.135
 FWDSTK = 2.100 AFTSTK = 2.100

RUN NO. 255/ D RN/L = 6.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CM	CLMM	CYM	CYMM	CBL	CA	CPB1
.888	72.740	17.08820	21.10140	.30670	3.14900	.01650	.35990	-.37950
.888	76.630	17.32520	18.52700	.21770	3.38490	.01070	1.05050	-.37480
.888	80.520	17.79160	15.60710	.23830	3.14850	.01610	1.33350	-.43310
.888	84.440	18.13060	13.17520	.12050	3.22640	.02020	1.42330	-.47340
.888	88.370	18.19180	11.14460	.07370	2.99020	.01810	1.29300	-.50650
.888	90.540	17.92100	15.64980	.24400	3.19010	.01640	1.35140	-.43450
GRADIENT		.07718	-.54657	-.01442	-.01221	.00033	.04648	-.00903

RUN NO. 196/ D RN/L = 7.03 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CM	CLMM	CYM	CYMM	CBL	CA	CPB1
3.460	72.440	19.51750	14.57080	.19060	2.04570	.03340	1.44890	.02220
3.460	76.430	20.13320	14.73460	.19720	1.98370	.03680	1.33150	.03170
3.460	80.450	20.60320	14.57270	.20220	1.98500	.03950	1.19100	.03780
3.460	84.420	20.89280	14.16580	.19700	2.00250	.04190	1.02960	.03710
3.460	88.420	20.94280	13.63430	.14860	2.09400	.03680	.84670	.03470
3.460	90.490	20.62310	14.56230	.19490	1.98080	.03130	1.19480	.03660
GRADIENT		.09040	-.06105	-.00210	.00268	.00030	-.03770	.00078

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MSFC 554 (SA1F) FRR/SRB (NO GRIT)

(R79H5E) (22 JAN 73)

REFERENCE DATA

SREF = .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.160
 FWDSTK = 2.100 AFTSTK = 2.100

RUN NO. 248/ 0 RN/L = 6.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CP81
.898	72.720	17.56480	20.64130	-.01040	-2.03450	.03620	.86540	-.41150
.898	76.630	17.69760	18.56130	.00410	-2.99850	.03410	1.21080	-.41340
.898	80.560	18.23390	16.22440	.07630	-2.97680	.03240	1.20340	-.43990
.898	84.480	18.62930	13.50480	.11690	-2.97290	.03390	1.31990	-.49360
.898	88.580	18.93190	11.14770	.08280	-2.86790	.02420	1.26610	-.53260
.898	90.600	18.24350	16.31070	.07660	-2.95380	.03380	1.20290	-.43950
GRADIENT		.09057	-.31404	.00739	.00691	-.00062	.02423	-.00023

RUN NO. 155/ 0 RN/L = 7.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CP81
3.480	72.480	19.50900	15.46750	-.00340	-1.07010	.05110	1.29040	-.00580
3.480	76.450	20.10640	15.74720	-.03300	-1.05280	.04670	1.12250	.00280
3.480	80.500	20.34230	13.84420	-.06860	-.96840	.04320	.93150	.01450
3.480	84.480	20.77810	15.81040	-.12530	-.83150	.03030	.74690	.01680
3.480	88.490	20.65140	15.40450	-.17670	-.68400	.02670	.52260	.02100
3.480	90.490	20.65160	15.60110	-.00410	-1.19040	.02060	1.07360	.01430
GRADIENT		.08382	-.00158	-.01098	.02430	-.00163	-.04721	.00174

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NSFC TWT 554

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NSFC 554 (SAIP) PRR/SRB (NO GRIT)

(R79131) (RE JAL '73)

REFERENCE DATA

BREF = .8030 SQ. IN. XMRP = 8.0010 INCH
 LREF = .8000 INCH YMRP = .0000
 RREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.200

RUN NO. 252/ 1 RN/L = 6.54 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CSL	CA	CPB1
.898	72.710	10.86180	20.84110	-.26240	2.19120	.27140	.66450	-.35640
.898	76.610	17.19780	16.32180	-.38520	2.51450	.27530	1.12120	-.34880
.898	80.530	17.59710	15.77280	-.36390	2.21960	.28130	1.31830	-.33600
.898	84.440	17.74140	15.15190	-.41600	2.33330	.28450	1.39070	-.42200
.898	88.360	16.02900	10.82480	-.45130	2.30010	.28920	1.29630	-.49070
.898	90.360	17.40160	15.67400	-.34800	2.19450	.28590	1.32180	-.38210
GRADIENT		.07354	-.64407	-.01019	.00090	.00115	.05878	-.00373

RUN NO. 157/ 0 RN/L = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CSL	CA	CPB1
3.480	72.420	19.23190	13.90880	-.31940	1.74160	.23000	1.44860	.00360
3.480	76.410	20.12090	14.18120	-.33060	1.74330	.24250	1.32670	.01280
3.480	80.430	20.58270	14.01150	-.34120	1.68690	.24680	1.19010	.02300
3.480	84.420	20.89320	13.73970	-.34700	1.70060	.25100	1.02180	.03000
3.480	88.400	20.94200	13.26890	-.35970	1.74840	.25230	.84320	.03640
3.480	90.430	20.89770	14.03490	-.34850	1.72090	.25030	1.19470	.02220
GRADIENT		.06952	-.04704	-.00442	-.00073	.00133	-.03797	.00217

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HSFC TWY 554

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HSFC 554 (SAIF) PRR/SRB (NO GRIT)

(RT915E) (22 JAN 73)

REFERENCE DATA

BREF = .5050 SQ. IN. XHRP = 6.0810 INCH
 LREF = .8000 INCH YHRP = .0000
 BREF = .8000 INCH ZHRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.200

RUN NO. 266/ 0 RN/L = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.895	72.710	17.75170	20.36420	.46980	-3.95870	.12960	.02240	-.43360
.895	76.620	18.15650	18.40700	.51470	-3.80810	.13060	1.17910	-.46930
.895	80.530	18.44540	15.77580	.56190	-3.86580	.12860	1.23690	-.49780
.895	84.430	18.92250	12.79030	.59070	-3.99590	.11970	1.39470	-.54450
.895	88.330	19.19870	10.03900	.62590	-3.90930	.12220	1.29110	-.59250
.895	90.570	18.46100	15.77620	.54810	-3.61030	.12680	1.23770	-.48590
GRADIENT		.05346	-.67254	.00994	-.00228	-.00066	.02935	-.01006

RUN NO. 158/ 0 RN/L = 7.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
3.460	72.500	19.35860	16.02380	-.21680	-.43600	.13430	.98280	-.00080
3.460	76.500	19.93070	16.43240	-.22780	-.37560	.13000	.82900	.00520
3.460	80.520	20.35890	16.49560	-.26640	-.24850	.12810	.84990	.01320
3.460	84.500	20.61200	16.40700	-.31940	.13320	.11940	.45620	.01870
3.460	88.310	20.69340	10.02840	-.36660	.08890	.11990	.23160	.02010
3.460	90.530	20.36880	16.57860	-.28810	-.18560	.12620	.61810	.01370
GRADIENT		.08378	-.00035	-.00978	.03227	-.00103	-.04686	.00137

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MSFC TWT 554

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MSFC 554 (3A1F) PRR/DRB (NO CR1)

(R7517E) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XMRP = 8.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 175.000
 FWDSTK = 1.100 AFTSTK = 1.200

RUN NO. 267/ 0 RM/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CSL	CA	CPBI
.894	72.727	16.96770	21.01560	.52270	2.89780	-.31920	.56470	-.40550
.894	76.610	17.15680	18.57720	.55980	2.48970	-.10940	.110260	-.43430
.894	80.540	17.57730	15.94630	.46060	2.48550	-.11830	1.38850	-.46890
.894	84.440	17.74100	13.26720	.42540	2.10070	-.11410	1.43670	-.51790
.894	88.370	18.02240	11.06590	.38550	2.07880	-.11020	1.30390	-.56920
.894	90.560	17.40140	15.00040	.44410	2.50070	-.11810	1.39910	-.45390
GRADIENT		.06883	-.63402	-.01046	-.05176	.00034	.04505	-.01030

RUN NO. 159/ 0 RM/L = 7.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYMH	CSL	CA	CPBI
3.480	72.440	19.42150	14.56240	.47750	1.12270	-.05750	1.47150	.00320
3.480	76.430	20.02320	14.77680	.48160	1.15260	-.06340	1.34410	.01110
3.480	80.430	20.49240	14.72010	.48770	1.20640	-.05710	1.19620	.02050
3.480	84.420	20.77020	14.37660	.48520	1.24630	-.05650	1.08280	.02400
3.480	88.420	20.84720	13.83680	.45170	1.32410	-.05990	.81700	.03020
3.480	90.490	20.50640	14.64060	.48650	1.18430	-.06190	.20060	.02010
GRADIENT		.09011	-.05150	-.00120	.01243	.00004	-.04077	.00160

DATE 02 MAR 73

MSFC IWT 554

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MSFC 554 (SAIF) PRR/SRB (NO GRIT)

(R79JSE) (22 JAN 73)

REFERENCE DATA

BREF = .5030 SQ. IN. XDRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 49.000
 FWDSTK = 1.200 AFTSTK = 1.100

RUN NO. 262/ 0 RN/L = 6.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CYL	CA	CPBI
.897	72.730	16.79990	20.97480	-.11170	2.20710	.17070	.56930	-.36440
.897	76.620	17.04670	18.57000	-.13460	2.08900	.16940	.97280	-.36810
.897	80.530	17.30810	15.89820	-.12500	1.83540	.17030	1.22570	-.38620
.897	84.440	17.75380	13.33700	-.19810	2.08470	.17540	1.34870	-.47010
.897	88.370	18.02920	10.89500	-.23510	1.96340	.16240	1.25640	-.46780
.897	90.560	17.44080	15.95290	-.12830	1.84700	.16960	1.24400	-.39500
GRADIENT		.08047	-.64430	-.00784	-.01256	-.00027	.04456	-.00662

RUN NO. 160/ 0 RN/L = 6.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLNM	CYM	CYNM	CYL	CA	CPBI
3.480	72.420	19.43650	14.20590	-.13330	1.10220	.12470	1.43300	.01470
3.480	76.420	20.01680	14.44830	-.15190	1.11540	.13000	1.30660	.02810
3.480	80.440	20.45890	14.43240	-.16570	1.14340	.12860	1.16620	.03330
3.480	84.440	20.67120	14.23340	-.23710	1.24700	.12190	.98480	.03720
3.480	88.420	20.70670	13.85990	-.30360	1.38670	.11730	.78440	.03390
3.480	90.450	20.44240	14.50090	-.19100	1.20830	.12320	1.15390	.03330
GRADIENT		.07589	-.02262	-.01064	.01750	-.00037	-.04045	.00119

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MSFC TWT 354

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MSFC 354 (SAIF) PRR/SRB (NO GRIT)

(R79J5E) (22 JAN 73)

REFERENCE DATA

BREF = .3030 34.1N. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.200 AFTSTK = 1.100

RUN NO. 263/ D RM/L = 6.37 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
.900	72.780	17.79210	22.09100	-.44290	-4.49570	-.02860	.85460	-.44490
.900	76.700	18.30870	20.01510	-.43780	-4.48720	-.03550	1.22150	-.47360
.900	80.630	18.65030	17.71810	-.37920	-4.53580	-.03510	1.19460	-.50850
.900	84.520	19.00840	14.81670	-.35770	-4.58660	-.03190	1.35040	-.57270
.900	88.440	19.24630	12.35840	-.31800	-4.45980	-.02820	1.25280	-.60580
.900	90.660	18.54550	17.66310	-.36410	-4.43900	-.03130	1.19470	-.51260
GRADIENT		.09218	-.63001	.00843	-.00069	.00011	.02363	-.01075

RUN NO. 161/ D RM/L = 6.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CBL	CA	CPB1
3.480	72.530	19.57770	16.64810	-.49960	-1.08680	-.02570	1.46130	-.00830
3.480	76.530	20.08770	17.28410	-.53750	-1.07730	-.02250	1.35860	.00340
3.480	80.560	20.54980	17.46980	-.57020	-1.03050	-.03310	1.23050	.01020
3.480	84.540	20.60920	17.40100	-.63450	-.94490	-.04680	.95670	.01520
3.480	88.550	20.83140	17.14350	-.69800	-.82840	-.06290	.80950	.01640
3.480	90.560	20.60320	17.38510	-.60130	-.91730	-.02180	1.01640	.01170
GRADIENT		.07816	.01771	-.01233	.01621	-.00246	-.04159	.00153

DATE 02 MAR 73

MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79J7E) (22 JAN 73)

REFERENCE DATA

BREF = .5030 90.IN. XMRP = 6.0810 INCH
 LREF = .8000 11ICH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BEYA = .000 PHI = 135.000
 FWDSTK = 1.200 AFTSTK = 1.100

RUN NO. 266/ D RN/L = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
.894	72.730	17.00490	21.31670	.88240	3.76900	-.22240	.52880	-.39870
.894	76.630	17.19380	18.65220	.87820	3.55340	-.22850	1.16280	-.42580
.894	80.540	17.53520	16.25940	.83470	3.73260	-.23380	1.36950	-.46750
.894	84.450	17.93850	13.64170	.86250	3.52720	-.23330	1.43800	-.50690
.894	88.410	18.18110	11.40080	.86080	3.54480	-.24020	1.30170	-.56150
.894	90.570	17.62130	16.32020	.83300	3.73370	-.23430	1.37930	-.46400
GRADIENT		.07905	-.63400	-.00150	-.01215	-.00103	.04636	-.01038

RUN NO. 154/ D RN/L = 7.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNM	CBL	CA	CPB1
3.460	72.450	19.51200	14.96140	.72050	2.05930	-.16250	1.47400	.00510
3.480	76.450	20.12640	15.08380	.72500	2.11570	-.16650	1.34430	.01160
3.480	80.460	20.58190	14.93710	.74190	2.20110	-.17190	1.19980	.02180
3.480	84.450	20.81670	14.58020	.71530	2.29690	-.17550	1.04710	.02620
3.480	88.430	20.92330	14.01690	.67510	2.41680	-.18570	.81000	.02980
3.480	90.460	20.57050	14.94710	.72000	2.23100	-.17230	1.19330	.02270
GRADIENT		.08795	-.08075	-.00251	.02242	-.00139	-.04088	.00160

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MSFC TWT 954

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MSFC 584 (SAIF) PRR/SRB (NO CRIT) (W/ATCH-RING)

(R79K3C) (22 JAN 73)

REFERENCE DATA

GREF = .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 95/ D RN/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
.902	33.250	5.82830	7.83680	.01480	-3.15180	.06360	1.32430	-.44980
.902	37.580	7.01020	11.16020	.45140	-2.57410	.07970	1.15090	-.46680
.902	42.000	9.08940	15.46950	.55190	-2.51890	.09800	1.01950	-.46070
.902	46.540	10.91880	19.48680	.66050	-.94210	.12670	.61830	-.44910
.902	50.980	13.12870	22.15910	.68710	-.02620	.13340	.62380	-.38420
.902	42.070	9.13740	15.41780	.55430	-2.36720	.10640	1.02310	-.45820
GRADIENT	.41707	.83285	.03490	.17761	.00420	-.03904	.00336	

RUN NO. 98/ D RN/L = 7.13 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYMH	CBL	CA	CPB1
3.480	33.300	8.92800	2.42530	-.03010	.38980	.02670	2.01410	-.08470
3.480	37.490	10.43830	3.01380	-.04290	.45200	.03720	2.14670	-.08460
3.480	41.750	11.87510	4.38270	-.03620	.52420	.05680	2.21260	-.08490
3.480	45.990	13.18350	6.13940	-.04160	.60270	.06080	2.15690	-.08140
3.480	50.230	14.43000	7.97250	-.05810	.71340	.07230	2.08650	-.07180
3.480	41.770	11.86430	4.50020	-.03980	.60530	.06280	2.27200	-.08110
GRADIENT	.32457	.33579	-.00129	.01884	.00271	.00365	.00069	

DATE 02 MAR 73

MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT) (WATCH-RING)

(R79K5C) (22 JAN 73)

REFERENCE DATA

BREF = .8030 84.1N. XMRP = 3.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 96/ 0 RN/L = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYNM	CBL	CA	CPB1
.899	33.420	6.75470	8.80440	.84070	-3.83320	-.00370	1.35930	-.43400
.899	37.800	8.59010	11.62040	.82400	-3.51280	.01290	1.22100	-.47500
.899	42.260	10.72690	14.81430	.82480	-3.86420	.02310	1.14790	-.49670
.899	46.710	12.69190	18.71320	1.06970	-3.80680	.03460	1.11730	-.52510
.899	51.060	14.36550	21.49040	.88560	-4.81480	.04850	1.00910	-.47810
.899	42.260	10.80490	14.88430	.80840	-3.94130	.02280	1.15980	-.49650
GRADIENT		.43735	.73477	.00763	-.04196	.00285	-.01819	-.00224

RUN NO. 97/ 0 RN/L = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMH	CYM	CYNM	CBL	CA	CPB1
3.480	33.330	9.15440	2.44920	.03540	-.43120	.00100	2.14740	-.08630
3.480	37.520	10.85380	3.13430	.05400	-.33340	-.00590	2.28820	-.03480
3.480	41.780	12.09080	4.48640	.06960	-.68050	.00080	2.33990	-.06700
3.480	46.030	13.43140	6.32490	.09520	-.78280	.00270	2.31140	-.08160
3.480	50.280	14.68060	8.28530	.10970	-.86270	.00630	2.25920	-.07110
3.480	41.800	12.17330	4.57060	.07380	-.59010	.00970	2.39970	-.07990
GRADIENT		.32608	.35038	.00448	-.02623	.00045	.00580	.00079

DATE 02 MAR 73

MSFC TWT 594

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MSFC 884 (8A1F) PRR/SRS (NO GRIT)

(R79L3E) (22 JAN 73)

REFERENCE DATA

BREF = .8030 IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 PWOSTK = 1.100

RUN NO. 872/ 0 RN/L = 6.52 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CMH	CLMH	CYM	CYMH	CSL	CA	CPBI
.896	72.730	16.70960	21.23100	.22030	.71360	.05890	.55600	-.36670
.896	76.630	17.02690	18.78640	.23470	.49940	.03440	1.11480	-.37270
.896	80.540	17.49900	16.18360	.17680	.85410	.04520	1.32890	-.40470
.896	84.450	17.73730	13.45760	.20360	.44330	.04180	1.39480	-.45020
.896	88.380	18.11640	11.36580	.17470	.48240	.03440	1.26620	-.49730
.896	90.550	17.32270	16.15380	.18470	.66040	.03670	1.33460	-.40710
GRADIENT		.09008	-.64003	-.00315	-.01324	-.00157	.04445	-.00866

RUN NO. 842/ 0 RN/L = 7.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CMH	CLMH	CYM	CYMH	CSL	CA	CPBI
3.480	72.410	19.23450	14.34140	.16410	.12280	.02820	1.42310	-.02400
3.480	76.420	19.85590	14.32620	.17520	.13620	.02670	1.30090	-.02060
3.480	80.440	20.32870	14.45640	.17220	.12740	.03070	1.15930	-.01010
3.480	84.450	20.51590	14.17600	.17380	.10220	.03690	.98650	-.00100
3.480	88.450	20.78010	13.80420	.16870	.08520	.03580	.80970	.00160
3.480	90.480	20.30250	14.47190	.17580	.11940	.03610	1.14890	-.00940
GRADIENT		.09458	-.04841	.00019	-.00272	.00058	-.03637	.00177

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MSFC TWT 554

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MSFC 554 (SAIF) PRR/SRB (NO CRIT)

(R79L5E) (22 JAN 78)

REFERENCE DATA

BREF = .3030 94.IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
 PWO5TK = 1.100

RUN NO. 275/ 0 RN/L = 6.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CSL	CA	CPB1
.894	72.760	17.33180	21.89970	-.32480	-1.53120	-.04440	.57680	-.44320
.898	76.680	17.56430	19.69000	-.27700	-1.59940	-.03310	1.19310	-.48110
.898	80.600	18.01750	17.43400	-.31100	-1.51930	-.03910	1.37560	-.48860
.898	84.510	18.15510	14.85800	-.29010	-1.62810	-.04380	1.42440	-.53690
.898	88.460	18.45530	12.78890	-.28920	-1.47420	-.04840	1.30260	-.58970
.898	92.840	17.79960	17.28340	-.30420	-1.43640	-.04250	1.36700	-.49350
GRADIENT	.07231	-.58866	.00148	.00221	-.00048	.04285	-.00940	

RUN NO. 236/ 0 RN/L = 7.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYNN	CSL	CA	CPB1
3.460	72.450	19.44820	15.30900	-.03210	-.71800	-.01940	1.42430	-.02160
3.460	76.470	20.09790	15.60200	-.02140	-.71520	-.01880	1.29870	-.02320
3.460	80.490	20.57830	15.60270	-.03980	-.75290	-.02010	1.19400	-.01620
3.460	84.500	20.85500	15.35070	-.03080	-.76020	-.02530	.96790	-.00680
3.460	88.500	20.98460	14.78420	-.03930	-.80920	-.03160	.80130	-.00640
3.460	92.530	20.55850	15.63500	-.03590	-.73960	-.02360	1.14760	-.01660
GRADIENT	.09550	-.03230	-.00060	-.00581	-.00078	-.02877	.00123	

DATE 02 MAR 73

MSFC TWT 554

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MSFC 554 (SAIF) PRR/BRB (NO CRIT)

(M74MBE) (22 JAN 73)

REFERENCE DATA

SREF = .3030 SQ. IN. XMRP = 6.0610 INCH
 LREF = .8000 INCH YMRP = .0000
 BREF = .8000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 45.000
 AFT8TK = 1.100

RUN NO. 273/ 0 RN/L = 6.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYHM	CSL	CA	CP81
.897	72.730	16.73610	20.96780	-.22160	1.85350	.13480	.58670	-.35670
.897	76.620	16.98020	18.51760	-.20190	1.78980	.16420	.86370	-.36530
.897	80.530	17.44450	16.00860	-.18390	1.54040	.16380	1.25620	-.38980
.897	84.440	17.70850	13.32020	-.26310	1.80260	.16270	1.36480	-.42700
.897	88.360	17.99750	10.98810	-.28620	1.72460	.15950	1.26940	-.47040
.897	90.540	17.18200	15.82480	-.18990	1.80890	.16880	1.23940	-.39070
GRADIENT		.08319	-.64369	-.00488	-.00626	-.00030	.04466	-.00740

RUN NO. 243/ 0 RN/L = 7.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMM	CYM	CYHM	CSL	CA	CP81
3.480	72.400	19.29570	14.21810	-.07660	1.21780	.13250	1.41280	-.01490
3.480	76.410	19.92060	14.31620	-.09180	1.16480	.13430	1.28710	-.01480
3.480	80.430	20.40380	14.20760	-.09110	1.14750	.13760	1.15270	.00150
3.480	84.440	20.89980	13.67780	-.08230	1.11520	.14800	.96330	.00620
3.480	88.460	20.82130	13.22990	-.09080	1.06930	.13990	.80100	.00480
3.480	90.470	20.39430	14.27320	-.09110	1.13200	.13960	1.14700	.01320
GRADIENT		.09546	-.06310	-.00047	-.00863	.00071	-.03604	.00165

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR.

DATE 02 MAR 73

MSFC TWI 534

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MSFC 334 (8A1F) PRR/SRB (NO GRIT)

(R78H5E) (22 JAN 73)

REFERENCE DATA

AREF = .5030 88. IN. XMRP = 8.0310 INCH
LREF = .8000 INCH YMRP = .0000
DREF = .6000 INCH ZMRP = .0000
SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 90.000
AFTSTK = 1.100

RUN NO. 271/ 0 RN/L = 0.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMK	CYM	CYHM	CSL	CA	CPB1
.898	72.690	16.91050	20.27490	.57770	-.88210	.13490	.63450	-.40340
.898	76.590	17.36010	17.77880	.67570	-.77710	.12770	1.14900	-.42160
.898	80.500	17.69750	14.95980	.56790	-.61910	.12350	1.15930	-.46270
.898	84.300	18.06390	12.02670	.58600	-.86330	.12480	1.31020	-.51950
.898	88.500	18.43440	9.46870	.58130	-.87500	.11990	1.24710	-.58190
.898	93.510	17.68270	14.99230	.58510	-.81390	.12000	1.16670	-.46340
GRADIENT		.09620	-.70046	.00050	-.00184	-.00064	.03555	-.01165

RUN NO. 257/ 0 RN/L = 7.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNM	CLMK	CYM	CYHM	CSL	CA	CPB1
3.480	72.380	19.47730	13.43260	.45820	-.87280	.11880	1.44350	-.01290
3.480	76.370	20.10170	13.60950	.47230	-.94130	.12310	1.31340	-.00990
3.480	80.410	20.56090	13.56500	.49190	-.92230	.12800	1.16400	-.00590
3.480	84.420	20.84090	13.31120	.46460	-.84240	.11920	1.00020	-.01000
3.480	88.400	20.98640	12.79110	.44810	-.74690	.12330	.82090	-.00280
3.480	93.490	20.54260	13.54870	.48060	-.92790	.12980	1.15410	-.00970
GRADIENT		.09270	-.04084	-.00079	.00871	.00013	-.03887	.00090

DATE 02 MAR 73

MSFC TWT 554

PAGE 100

MSFC 994 (8A1F) PRR/SRB (NO CRIT)

(R79F8F) (22 JAN 73)

REFERENCE DATA

SREF = .9030 SQ. IN. XMRP = 6.0810 INCH
 LREF = .8000 INCH YMRP = .0000
 SREF = .9000 INCH ZMRP = .0000
 SCALE = .0049

PARAMETRIC DATA

BETA = .000 PHI = 157.500
 FWDSTK = 1.100 AFTSTK = 1.100

RUN NO. 139/ D RM/L = 6.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNN	CLNN	CYM	CYNN	CBL	CA	CPB1
3.480	91.590	20.63530	11.55970	.05470	1.09150	-.09650	.09140	.02870
3.480	95.570	20.45570	10.99700	.00290	.67180	-.09630	.61570	.02890
3.480	99.580	19.98280	10.50860	-.02090	.78150	-.10340	.33120	.01920
3.480	103.620	19.31880	9.69050	-.04180	.72320	-.09770	.01500	.01150
3.480	107.620	18.50200	9.24740	-.05170	.63820	-.08840	-.33490	.00370
3.490	99.580	20.00740	10.49780	-.01570	.81210	-.09380	.32840	.01970
GRADIENT		-.13478	-.14289	-.00842	-.02430	.00037	-.07618	-.00166